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PART LXVII. AUGUST 1896.

LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN, LUCIEN LINDEN and A. COGNIAUX.

THE COLOURED PORTRAITS BY

P. DE PANNEMAEKER, A. GOOSSENS and J. GOFFART.

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LINDENIA

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OF ORCHIDS

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J. LINDEN, and LUCIEN LINDEN.

XII.

1896.

GHENT,

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AL
VAN DEFO
HACHEN.
TCOMET

CYPRIPEDIUM × LEBAUDYANUM HORT.

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DXXIX.

CYPRIPEDIUM × LEBAUDYANUM HORT.

M. ROBERT LEBAUDY'S CYPRIPEDIUM.

CYPRIPEDIUM. Vide *Lindenia*, I, p. 17.

Cypripedium × *Lebaudyanum*. Hybridum inter *C. philippinense* et *C. Haynaldianum* artificiosa fecundatione productum.

Cypripedium × *Lebaudyanum* HORT., *Journ. Soc. Nat. d'Hort. de France*, 1895, p. 338. — *Journ. des Orch.*, VI, p. 185.

At the present time artificial hybrids are numerous in the Cypripedium genus, and some raisers have arrived at the third or fourth generation. This however does not mean that they have exhausted the whole series of crosses which may be obtained from the typical species; and the hybrid which we figure to day is a striking proof of this, for it is certainly one of the most interesting which have been obtained in the genus.

C. × *Lebaudyanum* is the result of a cross between two of the most distinct species of Cypripedium that exist, both possessing great merit; if their crossing be of recent date, when *C. Spicerianum*, *C. barbatum*, *C. callosum*, *C. insigne* and several Selenipedium number already a long and numerous progeny, we must not be surprised; as both are relatively rare, and moreover of rather slow growth.

C. philippinense is held in high repute; it has been already figured in the *Lindenia*, and we need not introduce it to our readers. It belongs to the section which comprises *C. praestans* and *C. Rothschildianum;* the flowers of these plants grow in racemes of extreme beauty; but they are of slower growth than the Selenipedium and certain species from continental Asia, very common at the present time. It is extremely probable that its hybrids will be more rustic and more vigorous; our opinion is not founded on theory, or on horticultural analogies only, but on the example of *C. selligerum*, the result of a cross with *C. philippinense*, and which has been so abundantly multiplied that at the present time it figures in almost every collection.

C. Haynaldianum is still less common than *C. philippinense*, and is of rare distinction. It is a species bearing flowers in racemes, but quite distinct from the preceding group, and whose only analogue is *C. Lowi*. Like in the latter the petals are narrow, drooping, spathulate and slightly convolute; but the dorsal sepal is gracefully blotched instead of being uniformly of a yellowish green, suffused with dull brown at the base.

The crossing of these two species has proved quite a success, for *C. Lebaudyanum* combines in a wonderful way the qualities of both parents, and is of remarkable beauty.

The aspect is quite intermediate, the foliage ample; the flower-spike, about 30 inches long, bears on an average five very large flowers, of a very distinct shape and lovely coloration. The upper sepal is fully expanded, nearly as broad as long, of a beautiful pure white, with a greenish area at the base, and bears large blackish brown spots generally forming nine longitudinal lines; from the half of the height, these lines become continuous and gradually become paler until they are brownish rose. The lower sepal, nearly as large as the dorsal, but more concave and very broad, is tinted with pale green at the base and also bears a few rosy brown spots forming short lines.

The petals horizontal at first, then twisted and drooping from the third part of their length, are rather broad; the base is greenish, ornamented with large dark purple-brown blotches; the extreme half is of a beautiful bright violet-rose, tinted with brown on the edges.

The lip is clearly intermediate between those of the two parents, as well as the staminode; it is light greenish-yellow, veined with green, and the lateral lobes are pale yellow.

C. × *Lebaudyanum* is the result of a cross effected by M. Page, head-gardener on the beautiful estate of M. Robert Lebaudy, at Bougival. The seeds were sown in 1890; the plant flowered five years later. We may thus hope, as we said above, that the seedling will be more vigorous and of faster growth than its parents : this period of five years is quite normal.

The new hybrid was exhibited at the National Horticultural Society of France at a Meeting held on the 13th June 1895; it obtained great success, and was awarded a First-Class Premium and a First-Class Certificate of Merit.

Such a remarkable addition does great honour to the distinguished amateur who in a few years has formed a collection of Orchids well worthy of notice and full of promise for the future; it does honour also to the skilful gardener this amateur has made choice of and encouraged. This reminds us of what the Reporter of the Commission said, when sent by the National Horticultural Society of France to examine the estate of M. Lebaudy :

" M. Page is as modest as skilful; besides taking care of his flower-garden and vegetable-garden, he has found time for assembling a collection of Orchids in a small hot-house (merely from his love for plants, as he was not required to do so) and has made it thrive under conditions such that many would fail, for senseless and ridiculous pretexts; by degrees, M. Lebaudy's son, M. Robert Lebaudy, began to take an interest in these flowers, and becoming the owner in his turn, he did not hesitate in having special hot-houses built for the Orchids.

(*To be concluded on p.* 10.)

CATTLEYA TRIANAE LIND. VARIETATES

PL. DXXX-DXXXI.

CATTLEYA TRIANAE LIND. VARIETATES.

1. FESTIVA
2. REGALIS
3. DULCIS
4. AMPLISSIMA
5. SUPERBA
6. ARDENS
7. SPLENDENS
8. MAJESTICA

CATTLEYA. Vide *Lindenia*, I, p. 15.
Cattleya Trianae. Vide *Lindenia*, I, p. 63.

attleya Trianae is deservedly one of the most popular species of the genus. It blooms at a time when flowers are rarest and in most request; it offers all the qualities of effect and duration which are appreciated by amateurs and florists in this wonderful Cattleya genus, so highly privileged. If some species exist, more favoured perhaps in the size of the flowers, none offer so much charm and resource on account of the variability ; and amateurs who wish to have a collection of the most remarkable of the Cattleya genus in their hot-houses, can easily assemble thirty *C. Trianae* without having two alike. When these plants are in flower, it is extremely interesting to compare the different forms one with the other and such a comparison always procures a renewal of pleasure to the connoisseur.

We can form some idea of the number of these variations by examining the double annexed plate, and by comparing it to the seven other varieties precedently figured in the *Lindenia*. Already, in volume V of this work, we have devoted a whole publication to four superior varieties which may be considered exceptional; those we have grouped to-day are chosen amongst the most remarkable which have appeared this spring, at the meetings of the ORCHIDÉENNE. They certainly are not absolutely uncommon; but each one may serve as type for a whole group, and taken together, allow us to form a just idea of the value of this superb species and of the qualities peculiar to it.

We have published in our 5th volume a complete account of *C. Trianae*, discovered by M. LINDEN in 1842, in the Cundinamarca district, Columbia; we will not repeat it here. Let us only remark that notwithstanding the extreme variability of the tint of the flowers, it has, like the other Cattleya of the *labiata* group, a distinction inherent to it which cultivators can not mistake. Even when not in flower, the shape and the dimensions of the pseudo-bulbs and leaves, the disposal of the petals, their short, full shape, the lip not so long as that of *C. Warocqueana*, of *C. Mossiae*, and of *C. Mendeli*, etc.; lastly the yellow blotch, more or less orange coloured of the disk and its clear separation from the red blotch of the anterior lobe. *Cattleya Trianae*, to which Lindley gave the name

of *C. quadricolor*, making choice of a descriptive term which does not seem to us particularly well adapted to the plant, may be immediately recognized by the foregoing characteristics.

The following is a short description of the eight varieties figured on our plate, beginning by the upper part of the lithograph and going from left to right.

C. Trianae festiva. A bright coloured variety with harmoniously blended tints. The petals are very broad, slightly drooping and gracefully undulated, of a pale rose rather deeper on the edges; the sepals, slightly rosy; the lip full and longer perhaps than is usual, while the margins are very wavy and fringed; the lateral lobes rose, veined with bright rose colour outside towards the centre; the disk orange-yellow margined with white on the sides; the anterior lobe of a beautiful purple-crimson red, margined with very pale rose colour, the purple blotch passing into a few veins going towards the interior of the tube along the median band.

C. Trianae regalis. What immediately calls forth our admiration and attention, when we see this magnificent variety is the full, rounded, dark purple-red lip, comparable to that of some celebrated hybrids, such as *C.* × *Hardyana* or *Laeliocattleya* × *eximia*. The orange blotch of the disk is completely covered by this rich colour; only a feeble trace of it may be discovered in the red-brown at the orifice of the tube.

The sepals and petals are pale rose, tinted with lilac-rose towards the edges and the base; the petals are horizontal, broad, nearly elliptic. The tube is pale rose, enhanced by bright rose inside.

This variety is undoubtedly one of the most distinct we have ever seen, and deserves special mention in the fine group we are describing.

C. Trianae dulcis. This variety forms an absolute contrast with the preceding one : it reminds us of *C. Trianae pallida* or *C. Trianae delicata* or *Rollissoni*. It is however clearly distinct by the lilac-rose and not rosy-white coloration, of all the segments, by the smallness of the orange blotch of the disk, reduced to a mere narrow band and margined with white at the front, by the rose annular band which encircles the anterior lobe. The tube is pale rose, with white edges. The general aspect of the flower is very graceful and attractive with its wavy edges and beautiful coloration.

C. Trianae amplissima. This flower draws attention to it, as may be seen by our plate, by its compactness and the fulness of its short lip and petals. If Lindley has given to the species the name of *C. quadricolor*, the lip, here, would well deserve the epithet tricolor; its coloration is quite distinct. The whole circumference of the anterior lobe is white, which is rare in the *C. Trianae;* on the disk the orange blotch is very clear, fan-shaped, and in front is a broad crimson band. The contrast is striking.

The petals and sepals are delicate lilac-rose, the former very broad at the base, and rather elongate.

C. Trianae superba. This is another very distinct form. It somewhat reminds us, *exceptis excipiendis*, of what the *Oweni* variety, so much admired in London and in Brussels, is to *C. Eldorado*.

The petals and sepals are pure white, the former broadly elliptic; the tube of the lip is pale rose, the orange blotch of the disk is bright orange colour, not much flushed on the sides, and the anterior part of a beautiful crimson-red, paler on the edges.

One of the varieties of the *C. Trianae* most valued in England, the *Dodgsoni* variety, bears some analogy to it.

C. Trianae ardens. The name of this variety expresses the brilliant impression it produces, with its variegated pale rose petals and sepals, margined with bright rose, the lip entirely margined with red, and bearing on the anterior lobe a transversal blotch of a dark purple-red colour, which is most effective on the dark orange-yellow of the disk. All the segments are of a fine size, and the flower has a most elegant aspect.

C. Trianae splendens. In this variety the sepals and petals are entirely white, and the lip almost entirely purple-red; the contrast produced by these two colours is striking. The orange-yellow blotch of the disk is not very broad, and the purple blotch of the anterior lobe flushes the edges of the lateral lobes; the tube is pale rose.

In England there is a variety called *C. Trianae Emiliae*, which is very much admired, and that we have not seen, but which, judging from the description, must bear great analogy to *C. Trianae splendens*. Few forms of this species are more effective.

C. Trianae majestica. This variety may be called the connecting link between *C. Trianae ardens* and *C. Trianae amplissima*. It is remarkable for the two broad white blotches which ornament both sides of the anterior lobe of the lip, and which remind us somewhat of the lip of *C. Warocqueana majestica*. In the front part there is a beautiful large purple-red blotch, and the whole of the wavy fringed margin of the anterior lobe is bright rose spotted with pale red. The lip is decidedly most beautiful and distinct.

All the other segments are of a bright lilac-rose.

This magnificent series of new varieties shows what may still be expected at the present time, notwithstanding long years of persevering exploration in these regions, from skilfully managed importations. The establishment of Messrs Lucien Linden & C°, at Moortebeek, has exhibited for the last two years, at the meetings held in Brussels and London, some splendid varieties of many well known species, or that were considered well known, and which all at once prove far superior to any form hitherto admired by Orchidists. One species like *Cattleya Trianae*, already so much admired and sought after on account of its beauty and time of flowering, thus offers exhaustless resources to amateurs of cut flowers.

(*Concluded from p.* 6.)

" Who is the happiest, the gardener whose efforts have made his master a lover of Orchids, or the master who has the good luck to possess such a gardener? The indifference of the gardener would very probably have caused the indifference of the master. „

SOIXANTE-DIXIÈME MEETING DE L'ORCHIDÉENNE

Le soixante-dixième meeting a été contrarié par le mauvais temps qui sévit en Belgique depuis une huitaine de jours. Malgré cela, quelques belles Orchidées ont été présentées et nous avons surtout remarqué :

Le magnifique *Coelogyne pandurata* et le très beau *Cypripedium Massaïanum,* en exemplaires bien fleuris; le *Miltonia Lubbersi,* belle variété et les *Cypripedium Rothschildianum* et *Elliotianum,* ainsi que le *Zygopetalum Wendlandi,* de M. A. Van Imschoot;

Les *Laelia praestans,* variétés à grandes fleurs bien colorées, ainsi que le beau groupe de *Cattleya labiata,* de MM. Lucien Linden et C^ie^;

Le superbe *Odontoglossum crispum var. Triomphe de Rambouillet,* quoique en fleurs depuis deux mois et presque fané, qui a émerveillé le jury, de MM. Dallemagne et C^ie^;

Les splendides *Catasetum splendens var. aureo-maculatum, C. revolutum var. roseo-punctatum* et *C. fimbriatum var. Cogniauxi;* le beau *Vanda Sanderiana* et le *Vanda coerulea,* de M. Linden;

Le délicieux *Laeliocattleya* × *illuminata,* hybride des *Laelia purpurata* et *Cattleya labiata,* une plante de tout premier ordre, de M. Cahuzac;

Le *Cattleya Alexandrae,* de M. de Lombaerde;

Le *Cattleya Eldorado,* à pétales et sépales blancs, portant une légère tache de pourpre sur le labelle, de M. Coppens;

Le *Cattleya labiata,* bonne variété, de M. Stepman;

Le *Vanda Sanderiana,* de M. le D^r^ Capart;

Le jury a décidé d'être à l'avenir extrêmement sévère, plus sévère qu'il ne l'a été jusqu'ici, et de ne décerner des récompenses qu'aux plantes particulièrement remarquables.

Il était composé de MM. Kegeljan, président, Lubbers, secrétaire, Van Wambeke, Capart, Van Imschoot, Miteau, chevalier de Wargny, de Lombaerde, du Trieu de Terdonck et Vasseur.

Les récompenses suivantes ont été décernées :

Diplômes d'Honneur de 1^re^ classe

aux *Odontoglossum Triomphe de Rambouillet,* de MM. Dallemagne et C^ie^, *à l'unanimité;*
Laeliocattleya × *illuminata,* de MM. Cahuzac, *à l'unanimité;*
Catasetum splendens var. aureo-maculatum, de M. Linden, *à l'unanimité;*
Catasetum revolutum var. roseo-punctatum, de M. Linden;
Cattleya Eldorado var., de M. Coppens.

(*To be concluded on p.* 12.)

COELOGYNE LURIDA L. LIND. et COGN.

P. De Pannemaeker chrom.

PL. DXXXII.

COELOGYNE LURIDA L. LIND. et COGN.

THE YELLOWISH COELOGYNE.

COELOGYNE. Vide *Lindenia,* II, p. 79.

Coelogyne lurida. Planta glaberrima. Pseudobulbis gracilibus, superne longe attenuatis, arcuatis, 6 cm. longis, 1-foliatis, folio membranaceo subcoriaceo, oblongo-lanceolato, breviter acuminato, inferne acuto, 9-nervio, 14-15 cm. longo, 3 1/2-4 cm. lato; petiolo antice canaliculato, subsquarroso, 4 cm. longo. Scapis erectis, 6-7 floris; pedunculo compresso, albido-viridi, brunneo-maculato; pedicellis prope filiformibus, patulis, rubidis. Bracteis tenuissimis, siccis, albidis, oblongis acutis, concavis, multinerviis, ovarium aequantibus. Ovario lineari-claviformi, recto, obtuse trigono, 6-costato, purpureo, cum pedicello 16-18 mm. longo. Sepalis membranaceis, basi patulis-ventricosis, demum erectis, liberis, aequalibus, late oblongis, acutis, 5-nerviis, nervo medio proeminente postice prope carinato, 2 cm. longis, luteo-viridulis, inferne purpureo suffusis. Petalis submembranaceis, erectis, lineari-ligulatis, superne longe attenuatis, sepala aequantibus, prope eodem colore. Labello sepalis aequilongo, distincte trilobo, late unguiculato, ungue erecto purpureo; lobis albis exilibus; lateralibus-obovatis-oblongis, apice rotundatis, versus columnam deflexis; lobo antico patulo, ungue luteolo longo latiusculoque instructo, apice emarginato, utrinque dilatato in lobulos duos erectos rotundatos, margine paulo fimbriatos; lamellae duo super discum usque ad apicem unguis lobi terminalis. Gynostemium sepalis fere aequilongum, albens, inferne gracile, superne bialatum, alis latis membranaceis viridibus, apice conjunctis. Anthera imperfecte bilocularis.

Coelogyne lurida L. LIND. et COGN. in *Lindenia,* XI, p. 80, et infra.

This charming species was introduced lately by the HORTICULTURE INTERNATIONALE, and flowered for the first time at this establishment last May.

According to Bentham's classification it belongs to the Eucoelogyne section, and we only add from an horticultural point of view, according to the classifying proposed lately by the *Journal des Orchidées*, that it belongs to the group of species with erect flower-spikes, what constitutes a somewhat rare characteristic in the genus. This group only comprehends until now, as plants generally cultivated, *C. ocellata*, which is however very different from the new comer, as may easily be ascertained on examining the plate illustrating *C. ocellata* published in the *Lindenia* a few years ago. We must add that the discoveries made for the last two or three years in the genus have enriched it with two or three species which also produce erect racemes, so that this group, hitherto the most limited, seems to be the only one in which any novelty has been discovered for some time past.

C. lurida has other valuable merits; the flowers are graceful, the colours harmonious and not so dark as in many of its congeners, the flowers are well expanded, the petals of nearly the same size as the sepals, whereas in many species these segments are very narrowly linear, or even filiform. In fact, it is a very good acquisition.

(*Concluded from p.* 10.)

Diplôme d'Honneur de 2e classe

au *Catasetum fimbriatum var. Cogniauxi,* de M. Linden.

Certificats de Mérite de 1re classe

aux *Coelogyne pandurata,* de M. Van Imschoot, *à l'unanimité;*
lot de *Cattleya labiata* (syn. *Warocqueana*) de MM. Lucien Linden et Cie, *à l'unanimité par acclamation;*
lot de *Laelia praestans,* de MM. Lucien Linden et Cie, *à l'unanimité par acclamation;*
Vanda Sanderiana, de M. Linden;
Vanda Sanderiana, de M. le Dr Capart;
Cattleya labiata (syn. *Warocqueana*), de M. Stepman;
Cattleya aurea, du Domaine Royal de Laeken;
Cypripedium Massaïanum, de M. Van Imschoot.

Certificat de 2e classe

au *Miltonia Lubbersi,* de M. A. Van Imschoot.

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Anguloa uniflora var. eburnea, Bulbophyllum anceps, Bulbophyllum Dearei, Cattleya Aclandiae, Cattleya Alexandrae var. elegans, Cattleya Alexandrae var. tenebrosa, Cattleya × Brymeriana, Cattleya Dowiana var. Statteriana, Cattleya × Hardyana var. Gardeniana, Coryanthes macrocorys, Cypripedium × Leonae, Cyrtopodium punctatum, Dendrobium Macarthiae, Dendrobium nobile var. Cooksonianum, Epidendrum Wallisi, Grammangis Ellisii, Laeliocattleya × elegans var. Broomeana, Miltonia vexillaria var. virginalis, Odontoglossum Insleayi var. Imschootianum, Odontoglossum nebulosum, Stanhopea insignis, Vanda insignis, Zygopetalum graminifolium, Zygopetalum (Warscewiczella) Lindeni.

5th Volume

Angraecum articulatum, Batemannia Colleyi, Brassia bicolor, Cattleya amethystoglossa var. rosea, Cattleya × Hardyana var. Statteriana, Cattleya labiata, Cattleya Mossiae var. Mendeli, Chysis bractescens, Coelogyne Hookeriana, Colax jugosus, Cypripedium Lucienianum, Cypripedium × memoria Moensi, Cyrtopodium Aliciae, Laelia × Oweniae, Laeliocattleya × amoena var. delicata, Lycaste macrobulbon var. Youngi, Lycaste Skinneri var. purpurea, Masdevallia Harryana varietates, Maxillaria callichroma, Miltonia Warscewiczi, Mormodes igneum var. maculatum, Odontoglossum crispum var. Ferrierense, Phalaenopsis Lüddemanniana, Vanda tricolor var. planilabris.

6th Volume

Aerides Lawrenceae, Aganisia lepida, Catasetum Imschootianum, Catasetum Rodigasianum var. tenebrosum, Cattleya Aclandiae var. salmonea, Cattleya Eldorado var. Treyeranae, Cattleya velutina, Chondrorhyncha Chestertoni, Cymbidium grandiflorum var. punctatum, Cymbidium Lowianum, Cypripedium × Claudii, Cypripedium × conco-Lawre, Cypripedium × Lathamianum, Cypripedium × Lawrebel, Cypripedium philippinense, Cypripedium × Weathersianum, Galeandra Claesii, Laelia purpurata var. fastuosa, Laeliocattleya × eximia, Lycaste cinnabarina, Masdevallia × Pourbaixi, Maxillaria striata, Odontoglossum Thompsonianum, Odontoglossum Triomphe de Rambouillet, Vanda tricolor var. Hoveae, Zygopetalum grandiflorum.

7th Volume

Cattleya Aclandiae var. tigrina, Cattleya Eldorado var. Lindeni, Cattleya Eldorado var. Oweni, Cattleya Trianae var. Caparti, Cymbidium eburneum, Cypripedium × Dallemagnei, Cypripedium × Gibezianum, Cypripedium Godefroyae var. leucochilum, Cypripedium insigne var. montanum, Dendrobium Wardianum var. Lindeniae, Laelia × juvenilis, Laelio-Cattleya × Cauwenberghei, Laelio-Cattleya × elegans var. leucotata, Lycaste × Imschootiana, Lycaste Luciani, Masdevallia Davisi, Maxillaria mirabilis, Odontoglossum cirrhosum, Odontoglossum cordatum var. aureum, Odontoglossum crispum var. Dallemagneae, Odontoglossum crispum var. ocellatum, Odontoglossum crispum var. Waltonense, Odontoglossum Pescatorei var. Chaberiae, Trichopilia suavis, Zygopetalum intermedium var. peruvianum.

8th Volume

Anguloa × Madouxiana, Bifrenaria tyrianthina, Catasetum Lindeni, Catasetum Luciani, Catasetum macrocarpum var. Lindeni, Catasetum splendens var. album, Catasetum splendens var. atro-purpureum, Cattleya Cupidon, Cattleya guttata var. tigrina, Cattleya × Hardyana var. Luciani, Cattleya Mossiae var. Treyeranae, Cattleya Mossiae var. Wageneri, Cattleya Mossiae var. Wambekeana, Cycnoches Loddigesi, Cypripedium Charlesworthi, Cypripedium × Denisianum, Eria cinnabarina, Laelia purpurata var. Comte de Montebello, Laelio-Cattleya × Lindeni, Mormodes Cogniauxi, Odontoglossum nebulosum var. amabile, Odontoglossum Pescatorei var. Prince of Orange, Oncidium cristatum, Thunia Winniana.

9th Volume

Catasetum Bungerothi var. aurantiacum, Catasetum imperiale, Catasetum mirabile, Catasetum splendens var. Aliciae, Cattleya gigas var. amplissima, Cattleya Leopold II, Cattleya Mossiae var. amoena, Cypripedium × Félix Faure, Cypripedium × Madame Octave Opoix, Dendrobium nobile var. candidulum, Laelia glauca, Laeliocattleya × Sayana, Laelio-Cattleya × Varjenevskyana, Masdevallia ludibunda, Masdevallia triangularis, Maxillaria Lindeniae, Odontoglossum Edwardi, Odontoglossum × Halli-xanthum, Odontoglossum × harvengtense, Odontoglossum pulchellum var. majus, Phaius maculatus, Schomburgkia rosea, Stauropsis gigantea, Zygopetalum Wendlandi.

PART LXVIII-LXIX. SEPTEMBER-OCTOBER 1896.

LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN and LUCIEN LINDEN.

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> J. O'B.— GARDENERS' CHRONICLE, *April* 28, 1894, *p.* 528.

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LAELIA HARPOPHYLLA RCHB. F.

P. De Pannemaeker pinx. et chrom.

PL. DXXXIII.

LAELIA HARPOPHYLLA RCHB. F.

THE SWORD-SHAPED LEAVED LAELIA.

LAELIA. Vide *Lindenia*, II, p. 49.

Laelia harpophylla. (Hybrida inter Laeliam cinnabarinam et Brassavolam?) Valde affinis *Laeliae cinnabarinae.* Pseudobulbo tereti tenui ; folio ligulato acuminato ; sepalis tepalisque bene acutis ; labelli lacinia media lineari acuminata crispa ; carinis prope obsoletis.

Laelia harpophylla RCHB. F., in *Gard. Chron.*, 1873, p. 542. — *Fl. Mag.*, n. s., pl. 372. — *The Garden*, 1883, pl. 400. — WILL., *Orch. Alb.*, III, pl. 117. — *Journ. des Orch.*, VI, p. 230. — *Les Orch. exot.*, p. 800.

Laelia harpophylla is neither of ancient date nor commonly cultivated ; it flowered for the first time in 1867, and was only described by REICHENBACH in 1873. It made its first appearance in England, in the celebrated collections of Mr. S. RUCKER, at Wandsworth, and of Mr. DAY, at Tottenham. Its habitat is the southern region of Brazil, whence it has been more frequently imported of late years.

This species cannot evidently be compared with the principal gems of the genus, *L. purpurata*, *L. elegans*, *L. crispa*, nor even with *L. autumnalis* and *L. anceps*, the beauty of which is universally admired. Its flowers are smaller and less ample, but they attract attention for their remarkable coloration, very rare in the Orchidaceous family, and of which there is only one other example in the *Laelia* genus, that of *L. cinnabarina.*

Like the latter, *L. harpophylla* is orange-vermilion in colour, but the flowers are rather larger. They enliven the hot-houses about the month of April, and remain long in bloom ; as for decorating and making bouquets, they are of great use, as they form such a bright contrast of colour with the flowers of other cool Orchids, in which predominate white and red in every tint, from pale rose to dark purple.

The habit of *L. harpophylla* is also very distinct, and easy to recognize. The plant forms small tufts of cylindric pseudobulbs, about 10 to 15 1/2 inches in height, each one bearing at the apex a single narrow ligulate leaf.

As to the culture, *L. harpophylla* must be treated much in the same way as *L. pumila* and *Cattleya intermedia*, which evidently come from the same region.

It is a cool rather than a Mexican house Orchid properly speaking, and must receive regular ventilation and be well watered during the fine season. On the other hand, the sun does it no harm, and it only requires shade in the hottest part of the summer days. We have seen it thrive perfectly under these conditions in a house having a North-West aspect.

Our plate has been prepared by M. P. De Pannemaeker — the excellent artist who has painted for our publications for the last 24 years, and whose pencil and ardour are still as youthful and valiant as ever — after a fine specimen from the superb collection of M. Charles Van Wambeke, the well known Orchidist.

L. L.

ODONTOGLOSSUM ROSSI LINDL. var. PAUWELSIAE L. LIND.

P. De Pannemaeker chrom.

PL. DXXXIV.

ODONTOGLOSSUM ROSSI LINDL. var. PAUWELSIAE L. LIND.

MADAME FLORENT PAUWELS' VARIETY.

ODONTOGLOSSUM. Vide *Lindenia,* I, p. 11.

Odontoglossum Rossi. Vide *Lindenia,* IV, p. 73.

Var. Pauwelsiae. Sepalis brunneis intensius marmoratis minutissime albo marginatis, petalis eodem modo pictis, margine alba latiore. Labello albo, crista splendide lutea ; columna alba, anthera violaceo-rosea.

Var. Pauwelsiae L. LIND. *Journal des Orch.,* VII, p. 179, et supra.

Var. Madame Pauwels. Journ. des Orch., VII, p. 49.

There are two clearly distinct groups in the varieties of *Odontoglossum Rossi :* some having white flowers blotched with brown more or less dark, sometimes slightly greenish ; the others having pink flowers blotched with purple-red more or less deep in colour. The former type seems to be most ancient in date; it was introduced by the collector Ross for the first time in 1837, for M. BARKER, of Birmingham.

Both these groups comprise a certain number of forms, and taken together, the species may be considered as one of the most variable, after *O. crispum.*

No variety hitherto known, however, equals the beauty of the one we now figure, and which has been so greatly admired at the Meeting of the ORCHIDÉENNE on 9th February 1896. All the connoisseurs who have seen it, have spontaneously ratified the appreciation of the Jury, who had awarded it a First-Class Diploma of Honour unanimously and by acclamation. In this variety, which belongs to the first of the two groups above mentioned, the sepals are entirely suffused with light brown, with a mere white margin, whereas in all the other forms of *O. Rossi,* the sepals are white (or rosy), with a few blotches only at the base. On this ground, large irregular chesnut-purple spots vein them gracefully, especially near the base; the petals are spotted in the same way.

I am particularly happy to dedicate this superb plant to the wife of the distinguished amateur in whose house it has made its appearance; it will hold its owen in a place worthy of it. The collection of Orchids wich M. FL. PAUWELS has formed at Deurne, in a few years, with wonderful perseverance, faultless taste, and remarkable technical competency, contains a great number of select plants, some of which are of the first order. It is, moreover, admirably cultivated.

Culture. — The habitat of *Odontoglossum Rossi* is South Mexico and Central America as far as Nicaragua; it is cultivated in the same manner as *O. Cervantesi*, its near neighbour, to which it bears a close analogy. They are cool Orchids, but require less water, and rather more care in winter than *O. crispum* and the Masdevallia.

Owing to its small size, *O. Rossi* may be easily cultivated in pots, hung up near the glass. It is very free-blooming, and generally flowers at the beginning of the year, from January until April. It is then one of the most graceful ornaments of the Orchid house.

L. L.

LAELIOCATTLEYA × WARGNYANA L. LIND.

J. De Bosschere pinx. *J. Goffart chrom.*

PL. DXXXV.

LAELIOCATTLEYA × WARGNYANA L. LIND.

M. LE CHEVALIER DE WARGNY'S LAELIOCATTLEYA.

LAELIOCATTLEYA. Vide *Lindenia*, VII, p. 25.
Laeliocattleya × *Wargnyana* L. LIND., infra.

Laelia *elegans*, or *Laeliocattleya* × *elegans*, being itself of such extreme variability, it is not surprising that its crossing with the Cattleya or the Laelia which live in its neighbourhood in a wild state, or with the numerous species cultivated in the collections, should produce a great number of various forms.

The *Lindenia* has already figured several forms having an analogous origin. The one of which we now give the painting is not less interesting than its fore-runners. The flowers are perhaps rather slender, but their form is very elegant, and the coloration is exceedingly beautiful. The lip is very full, margins wavy and fringed, gracefully deflected forwards, bearing a superb purple-crimson blotch suffusing the tube inside very high up and the edges of the lateral lobes. Sepals very-long, petals oblong-lanceolate, pale rose, margined with brighter rose.

This beautiful novelty made its appearance last summer, in the hot-houses of the HORTICULTURE INTERNATIONALE. It was exhibited at a Meeting of the ORCHIDÉENNE on the 14th June, and was awarded a First-Class Certificate of Merit.

We hare happy to dedicate it to our excellent friend M. le Chevalier DE WARGNY, a member of the Jury of the ORCHIDÉENNE, an enthusiastic young amateur of Orchids.

—

CULTURE. — The already important series of Laeliocattleya in their diverse forms, of uncertain origin, allied to *Laelia elegans*, must be cultivated in the intermediate house in the same manner as *Cattleya labiata* and its varieties.

These plants are of easy culture and may be considered, in a general way, as being more vigorous and free-flowering than the species they issue from. This is a common effect of hybridation.

One of the most important points, to which we must call the attention of the cultivator of these Orchids, is to observe the annual rest. When the vegetation is over, and the pseudobulbs are well formed, they must be left to harden

and to ripen, the plants must not be much watered and it is well to let them be in the sun as much as possible. During this period, it is also good to ventilate the house whenever the weather is favourable, that is to say when the wind is not too strong and the thermometer outside does not go down under 12 to 14° C. The following year, the plants thus ripened and rested give vigorous shoots and an abundance of flowers.

The plants must be watered in such a way that they do not shoot forth again in autumn, and on the other hand they must not be deprived of water. It is difficult to state, as sometimes novice cultivators have asked us to do, the exact number of days that must intervene before the plants should be watered again : that depends on the season, the construction and the aspect of the house, the ventilation, the state and vigour of the plants, the compost, etc. But the gardener easily judges, when he has some experience, if the plants begin to require water, if the pseudobulbs wrinkle, if the compost is too dry and becomes brittle. On the other hand, as soon as the buds situated at the base of the pseudobulbs begin to swell, the plants must be allowed to flag, and the temperature lowered if necessary (by giving more air, for instance) to stop the growth.

Only, the rest must be brought about progressively; the plant must be watered gradually at further intervals until the maximum for the winter season is reached; it would evidently do the plants great harm to stop watering them all at once.

L. L.

ACANTHEPHIPPIUM MANTINIANUM L. LIND. et COGN.

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DXXXVI.

ACANTHEPHIPPIUM MANTINIANUM L. LIND. et COGN.

M. GEORGE MANTIN'S ACANTHEPHIPPIUM.

ETYMOLOGY : From *ἄκανθα*, aiguillon, and *ἐφιππιον*, selle.

ACANTHEPHIPPIUM. Sepala lata, carnosa, in urceolum latum oblique ventricosum cohaerentia, posticum fornicatum, lateralia basi pedi columnae adnata, mentum breve (v. conicum in *A. striato*), fere calcariforme formantia. Petala sepalis inclusa, ad latera columnae affixa, sepalis multo angustiora, basi cum marginibus membranaceis pedis columnae continua. Labellum ad apicem pedis columnae articulatum, inflexum, sepalis inclusum; lobi laterales lati, erecti; medius recurvus, indivisus. Columna brevis, crassa, superne anguste bialata, basi in pedem longissimum medium incurvo-inflexum producta; clinandrium breve, membranaceum. Anthera intra marginem clinandrii affixa, opercularis, incumbens, convexa, bilocularis, loculis imperfecte locellatis; pollinia 8, in quoque loculo 4, cerea superiora obovoidea, inferiora longiora, omnia erecta, sursum appendicula granulosa connexa; glandula nulla a rostello solvenda. Capsula magna, oblongo-clavata, erostris, costis 6 prominentibus. — Herbae terrrestres, pseudobulbis oblongis paucifoliatis. Folia ampla, plicato-venosa, in petiolum contracta. Scapi foliis breviores, aphylli, vaginis paucis latiusculis. Flores majusculi, in racemo pauci, pedicellis brevibus post anthesin accretis. Bracteae membranaceae, saepe coloratae, majusculae.

Sp. circa 7, Indiae orientalis et Archipelagi Malayani incolae.

Acanthephippium BLUME, *Bijdr.*, 353, pl. 47; *Orch. Archip. Ind.*, 156, pl. 49. — RCHB. F. in *Walp. Ann.*, VI, 460; *Bot. Reg.*, t. 1730 et 1846, t. 47; *Bot. Mag.*, t. 4492. — GRIFF. *Ic. Pl. As.*, t. 325. — MAUND., *Botanist*, t. 200.

Acanthephippium Mantinianum. Aff. *A. bicolori* LDL., a quo tamen differt robustiore habitu, inter caetera pseudobulbis duplo longioribus; florum colore satis dissimili; sepalis lateralibus multo magis gibbosis ad mediam partem quam in aliis speciebus generis; petalis paulo brevioribus, latissime unguiculatis, demum obtuse ovato-rhomboideis, apice rotundatis; labelli disco incrassato 5-costato, costis mediis super lobum terminalem laevem paulo productis; floribus patentissimis; bracteis 3 cm. nisi magis longis, ventricosissimis, viridibus, purpureo brunneo valde suffusis; sepalis utrinque nitidis, flavis pallide viridi suffusis, ad basin purpureo maculatis, superne intense purpureis, pallide luteo 7-striatis. Sepalis similibus, tantum ad basim candidioribus. Labello nitido cereo, externe purpureo punctulato, disco aurantiaco luteo, costis purpureo punctulatis vel lineatis. Columna alba, ad basim purpureo punctulata.

Acanthephippium Mantinianum L. LIND. et COGN. in *Journal des Orch.*, VII, p. 138, et supra.

The Acanthephippium genus, founded by BLUME in 1825, is composed of six or seven species, natives of the East Indies and the Malayan Archipelago. These plants, closely allied to the Chysis from a botanical point of view, are however very different with regard to the flowering, and this difference is very marked in horticulture, the former being far less popular than the latter.

Several Acanthephippium, however, are represented in the large collections, such as *A. javanicum*, which is of a beautiful golden-yellow spotted with red, and flushed with blood-red; *A. bicolor*, allied to the plant we now figure; the coloration is analogous to that of *A. javanicum; A. leontoglossum*, introduced by us a few years ago, the flowers of which are cream-yellow tinged with purple-red, the throat of the lip lemon-yellow; lastly *A. striatum*, more uncommon, altough it has been known for a great length of time; the flowers are white

striped longitudinally with rose, the lip margined in the front part with bright red.

All these plants have a fine robust habit, the foliage is ample and decorative, the flowers harmoniously tinted ; unfortunately these flowers do not expand well. The new species now figured may therefore, on account of this, be considered an excellent acquisition, being extremely beautiful.

It was introduced last spring by the Horticulture Internationale, where it flowered for the first time in June. It is a native of the Philippine Islands. Exhibited at a Meeting of the Orchidéenne, on June 16th, it obtained great success, and the Jury unanimously awarded it a First-Class Diploma of Honour.

It is with a particular pleasure that we have seized the opportunity of dedicating a new Orchid to M. George Mantin, the eminent French amateur, whose collection, at the Castle of Bel-Air, near Olivet, is famed for its richness and variety. M. Mantin is one of the Orchidists who do not merely collect and cultivate the representative of the tropical flora for the pleasure of the eyes, but who study and wish to know them thoroughly. Nothing concerning Orchids is indifferent to him, and in his hot-houses, we may admire, next splendid gorgeous flowers such as his superb hybrid *Cattleya* × *Mantini*, more modest and less familiar flowers, or rustic Cypripedium, which he has been the first to set the example of crossing with Indian species.

L. L.

SELENIPEDIUM CAUDATUM RCHB. F. var. WALLISI sub-var. VANDERSTRAETENIAE

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DXXXVII.

SELENIPEDIUM CAUDATUM RCHB. F. var. WALLISI sub-var. VANDERSTRAETENIAE.

THE LONG-TAILED SELENIPEDIUM, WALLIS' VARIETY, Mrs VANDERSTRAETEN'S SUB-VARIETY.

SELENIPEDIUM. Vide *Lindenia*, I, p. 25.
Selenipedium caudatum. Vide *Lindenia*, II, p. 99.
Var. Wallisi, supra.
Selenipedium Wallisi. RCHB. *Xen. Orch.*, II, p. 183, t. 181.
Cypripedium Wallisi RCHB. F. *Lindenia*, t. 131.
Var. Vanderstraeteniae L. LIND., infra.

The *Lindenia* has already figured several remarkable varieties of *S. caudatum*. This superb Orchid, described for the first time by LINDLEY after a dried flower from the herbarium of RUIZ and PAVON, was introduced into culture about the year 1849 or 1850. As regards elegance, peculiarity of form, and size of the flowers, it is certainly the most beautiful of the Selenipedium genus, and of the Cypripedium tribe.

The *Wallisi* variety was discovered in 1872-73 by GUSTAVE WALLIS, whose name it bears; it is characterised by the much paler coloration of the flowers, notably of the lip, which has pure white lateral lobes.

This variety is a native of the Ecuador, and has also been found in the Huanuco district, in Peru; the type is most frequently met with in New Granada, and in the Peruvian Andes. There are several geographical forms existing, variable both in form and coloration.

The plant we now figure bears undoubtedly some affinity with the *Wallisi* variety, but may be distinguished from it by the coloration of the flowers; the lip is tinged with rose towards the apex, outside and inside, and bears, along the orifice formed by the recurvation of the lateral lobes, a narrow brownish-yellow band. The sepals are tinted with brighter green than in the common form, and the petals, striped longitudinally with green, are tinged with rose from the part were they grow narrow.

This curious and very distinct form has appeared to us worthy of being dedicated to the distinguished French Orchidist, Madame VANDERSTRAETEN.

As regards culture, the Selenipedium may be considered as the most rustic and vigorous of the representatives of the Cypripedium tribe. *S. caudatum* is

of rapid growth, very free-flowering, and remains in bloom from April until July or August.

This plant requires less heat and more air than the Asiatic Cypripedium. It must be considered as an epiphyte, but is easy to cultivate in pots, if only on account of the richness of its leaves, and for the way in which the tufts and roots develop. It must be plentifully watered during the season of growth.

L. L.

AERIDES FIELDINGI HORT. var. ALBUM L. LIND.

J. De Bosschere, lith. J. Goossens, chrom.

PL. DXXXVIII.

AERIDES FIELDINGI HORT. var. ALBUM L. LIND.

COLONEL FIELDING'S AERIDES, WHITE VARIETY.

AERIDES. Vide *Lindenia*, I, p. 7.

Aerides Fieldingi. Foliis patulis, 18-25 cm. longis, 25-45 mm. latis. Scapis duplo longioribus, racemosis, rarius basi ramosis, racemis densifloris. Floribus roseis, segmentorum apice purpureo, basi albo pictis. Sepalo dorsali ac petalis obovatis obtusis, sepalis lateralibus late ovatis; labello satis deltoideo, acuminato, lateraliter paulo compresso, lobis lateralibus minutis ante os calcaris parvi albi incurvis, purpureo-roseis, albo marmoratis.

Aerides Fieldingi HORT., passim; JENNINGS, *Orchids*, pl. 20; *Belg. Hort.* (1876), pl. 18-19; WILL., *Orch. Alb.*, VII, pl. 309; DE PUYDT, *Les Orch.*, pl. 3; *Lindenia*, III, pl. 97; J. D. HOOK., *Fl. Brit. Ind.*, VI, p. 45.

Aerides multiflorum var. Fieldingi RCHB. F., *Allg. Gartenz.*, 1855, p. 225.

Aerides Fox-brush HORT.

Var. album. Floribus omnino candidis.

The plant we now figure is quite remarkable, not only on account of its beauty, but also on account of its rarity. The albino forms, which are sometimes met with in certain genera, notably in the Cattleya genus, in which they are so highly appreciated, were unknown hitherto, we believe, in the Aerides genus, as well as in its hot-house neighbours, Vanda and Saccolabium.

This superb variety appeared last summer in the collection of M. FLORENT PAUWELS, Mayor of Deurne and Provincial Counsellor. It was exhibited at a Meeting of the ORCHIDÉENNE on June 14th, when it was very much admired; the Jury awarded it unanimously a First-Clas Diploma of Honour.

The flowers are pure white, growing in great profusion, the long, graceful flower-spike forming a most elegant curve.

Aerides Fieldingi is often designated in England under the name of Aerides "*Fox-Brush*," which is evidently an allusion to the compact, almost cylindric form of the inflorescence. This name is very appropriate; it could only be objected that it may be as justly given to several other species of the same genus and of allied genera.

The species was introduced in 1850 by THOMAS LOBB, for Messrs VEITCH. It is a native of the mountainous region of Shillong, North-East of the Delta of the Ganges.

It is closely allied to *A. multiflorum*, and it is a known fact, that REICHENBACH considered it, at least at one time, as a variety of the latter. This opinion was also shared by EDOUARD MORREN. We are inclined, with the learned author of the Flora of British India, to considerer it as a distinct species, and we think

that the difference of habit and coloration, as well as the more acuminate shape of the lip, suffice to prevent any confusion.

CULTURE. — *A. Fieldingi* requires the same treatment as the majority of hot house Aerides, Vanda and Saccolabium. From the end of September or the beginning of October, all these Indian plants grow more slowly, and must be moderately watered. During the few fine days we may still hope for, the heat may be turned off, some of the ventilators may even be opened if the wind is not too strong; but during the night, all must be closed in the house, and the flues must be opened to maintain the temperature sufficiently high.

All shadings may be put away during the present season, it being necessary for the plants to enjoy the rays of the sun as much as possible.

L. L.

CATTLEYA × MATHONIAE L. LIND.

J. De Bosschere pinx. *J. Goffart chrom.*

PL. DXXXIX.

CATTLEYA × MATHONIAE L. LIND.

MADAME MATHON-MOTTE'S CATTLEYA.

CATTLEYA. Vide *Lindenia*, I, p. 15.
Cattleya Mathoniae L. LIND., infra.

This splendid plant appeared at Moortebeek, in the hot-houses of Messrs LUCIEN LINDEN and C°, amongst some importations of *Cattleya Mossiae*.

It is again one of those Orchids in presence of which we cannot help invoking the mysteries of natural hybridization. The flowers are so distinct, that it is impossible to consider it as only a simple variety; the throat of the lip is convoluted and crimped into longitudinal wrinkles, of most curious aspect, somewhat resembling *Cattleya Harrisoniae*, to such an extent, that several amateurs who have had the opportunity of examining the plant in our houses, considered it as a natural hybrid between this species and *C. Mossiae*. However we can hardly admit this hypothesis, on account of the enormous distance which separates the habitats of the presumed parents.

Only one species might very likely have produced *C. Mathoniae*, by its intercrossing in a state of nature with *C. Mossiae*, that is *C. Luddemanniana;* this view is possible, if we take into consideration the coloration of the flowers figured in the annexed plate : the sepals and petals are pale rose, as well as the lateral lobes of the lip; the front lobe is coloured on both sides of the throat with pale yellow striped with red, and the front margin is white faintly tinged with very pale rose. All these characters agree pretty well with what we should imagine a mingling of the colours of *C. Mossiae* and *C. Luddemanniana* would produce.

Whatever may be the origin of the plant we are speaking of, it must be considered as a most remarkable acquisition, on account of the fulness of the flowers, the width and fine habit of the petals, the curious, elegant form of the lip, and superb coloration of all these organs.

We are happy to dedicate this lovely novelty as a homage to Madame MATHON-MOTTE, of Roubaix, wife of the distinguished amateur whose choice collection of Orchids may be mentioned as being one of the finest in the North of France.

L. L.

CULTURE OF SELENIPEDIUM

Selenipedium are generally cultivated, like all Cypripedium, in the intermediate house from 12 to 15°, in a compost of fibrous peat and sphagnum, in equal quantities. During the season of growth, they require much moisture, and must be frequently watered, especially in summer, but great care must be taken not to let the water all on the centre of the shoots. For then an oily spot appears which spreads from one to the other, and soon causes the plant to die. Therefore, it is necessary to be careful, when watering these plants, and if, by chance, any water were to fall between the leaves, they must be dried with a piece of blotting paper or a small sponge.

From December until the end of February, the plants must be sparingly watered; in February they either need potting or top-dressing, and then should be allowed to grow.

CULTURE OF ACANTHEPHIPPIUM

Acanthephippium are cultivated in pots, in the hot house, in a compost the same as for Calanthe, composed of fibers and sphagnum, a third part of sand and leaf-mould. At the beginning, and during the season of growth, they require to be watered freely. After flowering they need a rest of about three months, care however must be taken to avoid letting the plants dry up. They should be watered once a week and put in a cooler place during this period.

ODONTOGLOSSUM × TROYANOFSKYANUM L. LIND.

J. De Bosschere pinx. *J. Goffart chrom.*

PL. DXL.

ODONTOGLOSSUM × TROYANOFSKYANUM L. LIND.

Dr TROYANOFSKY'S ODONTOGLOSSUM.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.

Odontoglossum × *Troyanofskyanum*. Hybridum novum apud naturam productum, floribus amplis pulcherrime luteo, albo et purpureo rubro maculatis. Sepalis oblongo-lanceolatis acuminatis; petalis latioribus, oblongis, crispulis, obtusis; labello obovato-oblongo, apiculato, crispo-denticulato, base subcordato, albo, ante lamellas cristae luteas transverse purpureo maculato.

Odontoglossum × *Troyanofskyanum* L. LIND., supra.

ew Orchids are a greater puzzle to the botanist than this group of hybrid Odontoglossum, of wich a certain number of forms have already been introduced and appear from time to time in the gardens. It has already been frequently tried to establish their filiation; it is even done sometimes with such mathematical precision, that we are rather disconcerted, but this very precision may lead to some mistakes.

It may be easily understood that these plants have given rise to endless appreciations and comments, as most of them are very beautiful; on the other hand these comments may be made for some time to come yet, the difficulties of hybridization, or rather the raising of the seedlings, being so great in the Odontoglossum genus.

Although hypotheses of this kind seem to be somewhat vain and uncertain — new discoveries having frequently upset foregoing theories — we think that we can without any fear ascribe the new form we new figure, to the crossing of *O. Pescatorei* with *O. triumphans*, or perhaps with *O. praenitens*.

It is certainly difficult in such cases to determine the influence of either parent; we fancy, however, that we find the trace of *O. Pescatorei* in the ample form of the sepals and petals, in the white coloration which covers the central part down to the base, and in the form of the upper part of the lip; similitude to *O. triumphans* in the yellow coloration and red blotches of the segments, in the general form of the lip (only rather modified towards the base), in the crest, and red blotch which is on the front part. The form of the lip and crest are the most distinctive features to be consulted in such a case; and we found our opinion on these elements of appreciation, finding no species more likely to be right to explain the origin of *O.* × *Troyanofskyanum*, than those above mentioned.

It ought to be remarked that *O. Pescatorei* and *O. triumphans* are already the authors of *O.* × *excellens;* but although *O.* × *excellens* is fairly distinct from the form we are speaking of, it will be easily admitted that there is no incompa-

tibility, if the variability of hybrids in general is taken into consideration, and moreover, that it may be the result of a cross effected in its native country at the third or fourth generation. We may surmise, for instance, that *O.* × *dellense* is the product of across of *O.* × *excellens* with *O. triumphans*, and *O.* × *Troyanofskyanum* the result of the fecundation of the same *O.* × *excellens* by *O. Pescatorei*, or by *O.* × *eugenes*, etc. It is hardly necessary to insist upon the endless hypotheses which present themselves in such cases.

We have just mentioned *O.* × *eugenes*. It indeed bears remarkable analogy to *O.* × *Troyanofskyanum;* it is also allied to *O.* × *excellens*, and is generally considered as having the same parents; REICHENBACH in 1888 gave it the name of *O.* × *excellens var. eugenes*.

O. × *Troyanofskyanum* in fact belongs to the same group. It made its appearance at the HORTICULTURE INTERNATIONALE, amongst a series of importations, which in the space of one year have produced so many marvellous novelties, *O. crispum augustum*, *O. crispum meleagris*, *O.* × *rubiginosum*, *O.* × *spectabile*, etc.

We have dedicated it to the well known Muscovite amateur Dr TROYANOFSKY, to whom Russian Orchidology owes many important improvements.

L. L.

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PART LXX. NOVEMBER 1896.

LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN and LUCIEN LINDEN.

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CYPRIPEDIUM × MORGANIAE HORT. var. BURFORDIENSE HORT.

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DXLI.

CYPRIPEDIUM × MORGANIAE HORT. var. BURFORDIENSE HORT

Mrs. MORGAN'S CYPRIPEDIUM, BURFORD LODGE VARIETY.

CYPRIPEDIUM. Vide *Lindenia*, I, p. 17.

Cypripedium × *Morganiae*. Hybridum inter *C. superbiens* et *C. Stonei* artificiosa fecundatione productum.

Cypripedium × *Morganiae* HORT. — *The Garden*, 1883, p. 58; *Gardeners' Chron.*, 1886 (XXVI), p. 243, cum ic., et 1890 (VII), p. 545. — *Ill. Hort.*, 1887, p. 16. — *Les Orchid. exot.*, p. 714. — *Orch. Alb.*, VII, pl. 313.

Var. Burfordiense. Inter *C. superbiens* et *C. Stonei var.* apud clarissimum dom. TREVOR LAWRENCE artificiose productum.

Var. Burfordiense HORT., *Orch. Rev.*, I, p. 41, et passim.

Var. Burford Lodge HORT. *Les Orch. exot.*, p. 714, et passim.

Cypripedium × *Morganiae* flowered for the first time thirteen or fourteen years ago, and this magnificent hybrid still holds the first rank in the genus, notwithstanding the improvements owing to artificial fecundation. It is certainly one of the finest of Orchids known, the effect produced by the size of its flowers, their superb form, coloration and number is incomparable. They offer some analogy to the famous *C. Stonei platytoenium*, the king of Cypripedium, the one which was classed first in the plebiscit organized by the *Journal des Orchidées*.

This resemblance is very striking in the Burfordiense variety, figured on the annexed plate, which is the result of a cross between superior varieties, and if we do not mistake with *C. Stonei platytoenium* itself. This variety, which was obtained in the celebrated collection at Burford Lodge, belonging to Sir TREVOR LAWRENCE, has larger flowers of brighter coloration, the petals especially are broader and more thickly blotched. It unites the most brilliant qualities of the species to which it owes its birth, with more vigour and is more floriferous.

Orchid raisers have for the last few years made use of *C. superbiens* and *C. Stonei* for the production of a certain number of new hybrids, nearly all remarkable, and presenting to a certain degree the following general characteristics : in the descendants of the former, the elegant form, fine blotches and broadness of the petals, the fulness and light coloration of the dorsal sepal; in the lineage of *C. Stonei*, the distinguished appearance, the lenght and graceful habit of the petals, the ivory coloration of the dorsal sepal, the superb shape of the slipper and staminode.

Amongst these hybrids, several of which are already beginning to be very popular, we may quote :

C. × *Youngianum*, the result of a cross between *C. superbiens* and *C. philippinense*.

C. × *Denisianum*, the result of a cross between *C. superbiens* and *C. selligerum* (vide *Lindenia*, X, p. 13).

C. × *Diana*, the result of a cross between *C. superbiens* and *C. Spicerianum*.

C. × *Mabelianum*, the result of a cross between *C. superbiens* and *C. Elliottianum*.

C. × *Numa*, the result of a cross between *C. Stonei* and *C. Lawrenceanum*.

C. × *Edith Winn*, the result of a cross between *C. Stonei* and *C. purpuratum* or *barbatum*.

C. × *Alice*, the result of a cross between *C. Stonei* and *C. Spicerianum*.

C. × *The Duke*, the result of a cross between *C. Stonei* and *C. barbatum*.

C. × *Lord Derby*, the result of a cross between *C. superbiens* and *C. Rothschildianum*.

Several seedlings produced by the crossing of species more or less analogous sometimes offer a striking resemblance to the above mentioned varieties; the descendants of *C. Rothschildianum*, for instance, may be classed in the same section, and it is a known fact that amongst them is to be found a whole category of remarkable hybrids, of which *C.* × *Massaianum* is typical.

C. × *Morganiae*, and especially its Burfordiense variety, is up to the present time the finest specimen of this group.

Our plate was painted after the superb plant belonging to the collection of M. le Comte de Bousies, so often quoted in this Iconography as being one of the most select and best cultivated in Europe.

L. L.

ONCIDIUM LURIDUM LINDL.

Henri Leroux pinx. *P. De Pannemaeker chrom.*

PL. DXLII.

ONCIDIUM LURIDUM LINDL.

THE YELLOWISH ONCIDIUM.

ONCIDIUM. Vide *Lindenia*, I, p. 37.

Oncidium luridum. Foliis oblongis acutis rigidis carnosis; scapo paniculato multifloro; sepalis petalisque undulatis obovatis, superioribus obtusis, inferioribus acutis; labelli lobis lateralibus nanis obtusis, intermedio undulato transverso emarginato, crista tuberculis 2 ad basin 2 majoribus intermediis callisque tribus cruciatis a fronte; columnae alis unguiculatis rotundatis brevibus.

Oncidium luridum LINDL. in *Bot. Reg.* (1823), pl. 727; *Gen. and Sp. Orchid.*, p. 201; *Fol. Orch., Oncid.*, nº 131. — *Bot. Mag.*, pl. 3603.

Epidendrum guttatum L., *Sp. Pl.*, p. 1351.

Cymbidium guttatum WILLD. *Sp. Pl.*, IV, p. 102.

Oncidium cuneatum LINDL., *Coll. Bot.*, p. 27.

Var. intermedium LINDL. *Fol. Orch., Oncid.*, nº 131. — *Oncidium intermedium* KNOWLES et WESTC., *Fl. Cab.*, II, p. 53. — WILL. *Orch. Alb.*, VIII, pl. 345.

Oncidium Luridum does not often appear in cultivation. In a state of nature, however, it is one of the species most widely dispersed. The first plant which was introduced in Europe, the one described by LINNÉ, was a native of Jamaica. Since that time, the species has been discovered in the West Indies and the neighbouring regions of Continental America, South America, Central America and South Mexico.

It is all the more surprising not to see it figure in every collection, that it is a very decorative plant, the flowers being of a good size and prettily tinted.

The coloration varies greatly; this is very frequent with Orchids which are dispersed over a wide surface. This fact has even induced some authors to suppose that in a state of nature there has been intercrossing between *O. Luridum* and two other forms closely allied to it, *O. haematochilum* and *O. Lanceanum*. These are mysteries difficult to solve; it is certain, however, that one of the varieties ascribed to the former, the intermedium variety, reminds us very strongly of the coloration of *O. Lanceanum*.

The most common type has clawed sepals and petals, margins undulated, of a dull yellow or brownish colour blotched with yellow, the lip three-lobed, with small, rounded lateral lobes, the front lobe forming a short broad claw, then transversely oblong emarginate in front. The crest is yellow spotted with red; on each side a small round rose tubercle; the wings of the column rounded kidney-shaped, are rose in colour.

LINNÉ had classed this species with the *Epidendrum genus*, like all the Orchids known in his time. When it was re-introduced subsequently and flowered

in England in 1823, LINDLEY did not recognize the *Epidendrum guttatum* of his predecessor and gave it the new name which it has kept since.

It would be most desirable that *O. Luridum* should be introduced freely into cultivation. A great number of plants of this genus are of the utmost service for the ornamentation of the hot-houses or for the making of bouquets. The flowers form elegant clusters of extreme variety and brilliant coloration.

The culture of *O. Luridum* is about the same as that of *O. haematochilum* and of *Cattleya citrina*. It is to be placed in the intermediate house; during the fine season and notably at the time when the flowers appear, the plants can be taken into the temperate-cool house. They require to be watered freely, and not to be exposed to the rays of the sun; the compost during the time of rest ought never to be allowed to become quite dry.

The annexed plate figured from a fine specimen belonging to Dr CAPART, has been painted by one of our new artists, M. HENRI LEROUX, and is the first production of this excellent painter in horticultural illustrations.

L. L.

ODONTOGLOSSUM MACULATUM LLAVE

P. De Pannemaeker chrom.

PL. DXLIII.

ODONTOGLOSSUM MACULATUM LLAVE.

THE BLOTCHED ODONTOGLOSSUM.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.

Odontoglossum maculatum (xanthoglossum). Pseudobulbis oblongis compressis monophyllis; foliis oblongis nervosis acutiusculis; racemis pendulis multifloris brevioribus; bracteis navicularibus, herbaceis, ovario brevioribus; sepalis lineari-lanceolatis acuminatis discoloribus; petalis oblongis undulatis acuminatis; labello cordato acuminato sub-crenato, appendice unguis bivalvi concava cochleari apice producta marginata per medium arguta serrulata; columna pubescente subaptera.

Odontoglossum maculatum LLAVE et LEX., *Orch. opusc.*, nº 39. — LINDL., *Bot. Reg.*, 1840, pl. 30; *Fol. Orch., Odont.*, nº 11. — LIND., *Pescatorea*, pl. 28. — BATEM., *Monogr. Odont.*, pl. 20. — *Bot. Mag.*, pl. 6455. — WILL., *Orch. Alb.*, II, pl. 52. — PAXT., *Mag. Bot.*, XIII, p. 147 (*O. cordatum*). — *Journ. of Hort.*, 1888, p. 149, fig. 17. — *Les Orch. exot.*, p. 868.

Odontoglossum maculatum is a native of the southern part of Mexico, where it was discovered, about seventy five years ago, by LA LLAVE and LEXARZA, on the range of mountains washed by the Pacific Ocean, at a short distance from Valladolid. It was described by the explorers in their *Orchidianum opusculum*, published in 1825. It flowered in Europe for the first time about 1845, at Birmingham, in the celebrated collection of M. GEORGE BARKER, who was the first to introduce it, but it soon disappeared from cultivation, and was only to be found on the continent towards 1869, when it was figured in the *Pescatorea* by M. J. LINDEN, who had definitively re-introduced it.

In the form figured in the *Pescatorea* the sepals were violet-purple within, pale purple without, green median nerve, yellowish-green tip, whereas the plate figured twenty years earlier in the *Botanical Register* showed flowers with sepals of a dull purple coffee colour inside, and uniformly green outside. Experience has taught us that the form figured in the *Botanical Register* is the most common.

O. maculatum is closely allied to *O. cordatum*, both having much about the same story. They are, however, easily distinguished one from the other. The principal mark of distinction is the decided contrast of colours between the coffee-brown sepals, and pale yellow petals spotted with brown towards the base, the same as the lip. The flowers of *O. maculatum* are also much smaller than those of *O. cordatum;* the petals are much shorter and broader, oval-apiculate, the lip more expanded and shorter, reminding us somewhat of that of *O. Cervantesi*.

Another species geographically allied to *O. maculatum* and bearing some analogy to it, is *O. Rossi;* the latter, however, has much richer colours and finer

segments, especially the lip which is often remarkable on account of its fulness.

The annexed plate is figured from a beautiful variety belonging to M. Florent Pauwels, of Antwerp, the well known amateur.

—

Culture. — The Mexican Odontoglossum, of which *O. maculatum*, *O. Cervantesi*, *O. Rossi*, *O. citrosmum* are chiefly typical, require a little more heat than *O. Pescatorea*, *O. luteo-purpureum*, etc.; they do not need the air to be so freely renewed, and their rest is more characterised; they may be allowed to pass winter in the Intermediate house, whereas during the fine season it is better to treat them in the same way as their congeners from Colombia and Venezuela.

L. L.

CATTLEYA MOSSIAE HOOK. VARIETATES

1. VAR. JOHN SCHULZ 2. VAR. LUCIENNE

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DXLIV.

CATTLEYA MOSSIAE HOOK. VARIETATES.

1. JOHN SCHULZ'S VARIETY. 2. LUCIENNE'S VARIETY.

CATTLEYA. Vide *Lindenia,* I, p. 15.
Cattleya Mossiae. Vide *Lindenia,* IV, p. 85.

I remember that hardly fifteen years ago, an amateur who possessed fifteen or twenty different *Cattleya Mossiae* in his hot house, showed them to me with pride has being a fine collection of this species. His plants were of three distinct typical forms, the first of the darkest coloration, the second with larger flowers than is usual, and the third represented by a form in which the yellow veins of the throat covered both sides of the lip. Passing over some unique varieties which figure in a small number of famous collections, this small group did indeed represent a good selection of the different forms of *C. Mossiae* introduced into cultivation.

Since that time, however, the horticultural art has vastly improved, and the collection we admired in 1880, would seem very incomplete and poor at the present time. Owing to importation Orchidiologists have been able to make choice of superior varieties, so distinct, that at certain Exhibitions, for instance at those of the ORCHIDÉENNE, we may see collections of thirty or forty *C. Mossiae* without two forms being alike.

The publisher of the *Lindenia* wishing his subscribers to know all the new discoveries made, has already figured over a dozen different varieties, five of which have appeared within the last three years. These varieties were chosen amongst the most remarkable; several more might still be produced before giving a general idea of the extent of the variation of *C. Mossiae.* To confirm this, two varieties are figured on the annexed plate, which have flowered recently in the hot houses of Messrs. LUCIEN LINDEN et C°, at Moortebeek, and which are finer and more distinct than their predecessors.

The *John Schulz* variety, dedicated to the distinguished Russian amateur, whose fine Orchids I have already quoted, in remembrance of his visit to Moortebeek, is remarquable for the size of its flowers and brilliancy of coloration. It may be considered as the largest in size hitherto known. The petals of unusual length and breadth, of very fine habit, are pale rose veined with lilac on both sides of the median nerve; the sepals are of the same colour. The lip is much undulated and fringed, the front lobe is red, irregularly veined with dark purple-

red, with a very broad pure white margin, which forms a striking contrast; on both sides of the throat there are two large orange-yellow blotches, veined with light brown.

The second variety, *Lucienne*, dedicated to my elder daughter, is as large as the first, and is remarkable for its extreme delicacy of coloration. The petals are almost white, veined with pale rose; the sepals are also very pale rose. The ground of the lip is almost white veined with purple-red somewhat resembling that of *C. Mossiae Reineckeana*, and bears at the opening of the tube two small golden-yellow blotches. The whole of the front lobe is broadly margined with white. The annexed plate is a faithful reproduction of the dimension of the flowers : they have been measured with compasses. The coloration on the plate is not so lovely as the reality, there being no purple colours in chromolithography vivid enough to copy nature exactly. The contrast with the white paper sometimes makes the colours appear exaggerated. Il we place a piece of white card-board behind the flower of a Cattleya, for instance, we shall see how its beauty is enhanced, and how vivid the colours appear.

We have had much trouble for the last ten years with the painter we formerly employed, who had a great tendency to make the flowers appear larger, and we had to be very particular about the execution of his drawings to attain the accuracy our plates have always had hitherto.

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L. L.

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PART LXXI-LXXII. DECEMBER-JANUARY 1896-97.

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ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN and LUCIEN LINDEN.

TRANSLATED FROM THE FRENCH BY J. WEATHERS.

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ODONTOGLOSSUM HUNNEWELLIANUM RCHB. F. var. GRANDIFLORUM LIND.

PL. DXLV.

ODONTOGLOSSUM HUNNEWELLIANUM RCHB. F. var. GRANDIFLORUM LIND.

Mr. HUNNEWELL'S ODONTOGLOSSUM, LARGE FLOWERED VARIETY.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.

Odontoglossum Hunnewellianum. Pseudobulbis subcompressis, 5 cm. longis, circa 3 1/4 cm. latis; foliis prope 8 cm. latis, 15-20 cm. longis. Sepalis late lanceolatis acutis, viride luteis, brunneo plurimaculatis; petalis similibus, versus basin paulo pallidioribus, maculis numerosis parvioribus; labello obovato-elliptico, albo vel cereo, brunneo-roseo maculato et secundum marginem punctulato, margine crenulato-undulato, ad basin reflexo, antice incurvo; lamellis tribus super discum, media breviore, lateralibus divergentibus, serrulatis, apice dentatis. Columnae alis latis, truncatis, crenulatis, albidis, fusco paucimaculatis.

Odontoglossum Hunnewellianum ROLFE, in *Gard. Chron.*, n. s., VI, p. 67.

Var. grandiflorum LIND., infra.

Odontoglossum Hunnewellianum is of comparatively recent introduction and is not yet widely distributed. When it becomes better known it will doubtless find a place in every collection as one of the principal types of the genus. It is very distinct and graceful, and belongs to the smaller-flowered section of the genus. Were its blooms as large as those of *O. luteo-purpureum* they would compare very favourably with that species as they possess the beauty of *O. sceptrum* and a richer colouring.

This species was discovered about 1888 by Mr. OSCAR BOBISCH, who according to Mr. ROLFE of Kew, collected it in New Grenada, near Bogota.

Mr. ROLFE expresses the opinion that the lip of *O. Hunnewellianum* is similar in form to that of *O. luteo-purpureum*, and makes one think immediately of that species, but the wings of the column remind one rather of *O. Pescatorei*. However this may be, it is here unnecessary to say that *O. Hunnewellianum* is quite different from these two species and more particularly the latter. It exhibits perhaps some analogy with *O. Schillerianum*, the flowers of which are almost of the same shape, and from a horticultural point of view, perhaps this is the only species at all resembling that now under notice. On the whole however, *O. Hunnewellianum* is quite a distinct species, and has features of its own which render it a very desirable acquisition.

It is dedicated to Mr. H. H. HUNNEWELL, of Wellesley, Massachusetts, who is well known as the possessor of one of the richest collections of Orchids in the United States.

The variety *grandiflorum* which we now figure appeared in the establishment

of Messrs. Lucien Linden & C°, at Moortebeek, among the Colombian importations from which so many choice plants have already been derived. So far as size is concerned the variety *grandiflorum* is far superior to the type, and has besides a more highly coloured lip. It adds a fresh lustre to this charming species which will without a doubt become greatly sought after for its cut bloom by collectors and amateurs when it becomes better known and more abundant.

OBITUARY.

It is not to France alone that the sorrow and deep regret caused by the death of Madame Furtado-Heine are confined. Her unbounded charity, glorious in its impartiality, has been productive of good in all quarters, and has excited universal admiration. The philanthropic institutions, to which she has devoted not only the capital necessary to establish them on a solid basis, but also the revenue requisite to maintain their efficiency, will transmit her name to posterity.

Here we have souvenirs to which no one can remain indifferent, being as they are an honour to mankind. Perhaps we may be permitted to add that Madame Furtado-Heine, took a keen interest in Orchids, and that we feel honoured in being able to count her among the number of Patrons of Horticulture, and also among the subscribers to our different publications. In this we seem to be able to trace another mark of her great sympathy for everything indicating progress and work, as well as for those in suffering.

We desire to offer our sincere condolences to one of her nearest relatives, M. Cardazo, whose name is already known to our readers, and whose devoted attachment was so highly cherished to the last moment by the deceased.

CYPRIPEDIUM LAWRENCEANUM RCHB. F. var. VIRIDE L. LIND.

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DXLVI.

CYPRIPEDIUM LAWRENCEANUM RCHB. F. var. VIRIDE L. LIND.

SIR TREVOR LAWRENCE'S CYPRIPEDIUM, GREEN VARIETY.

CYPRIPEDIUM. Vide *Lindenia*, I, p. 17.
Cypripedium Lawrenceanum. Vide *Lindenia*, I, p. 89.
Var. viride L. LIND., infra.

In the first volume of the *Lindenia*, a variety of *C. Lawrenceanum* has already been figured, namely, the magnificent variety *Hyeanum*, which had just flowered for the first time in our houses, and was dedicated to Mr. JULES HYE, the well-known Ghent amateur. Its appearance caused a great sensation, and it still remains one of the choicest and most distinct forms in the section to which it belongs.

The new variety, represented in our figure, is also very handsome, and is quite distinct and rare.

The variety *Hyeanum* may be regarded as a kind of albino. The usual red and brown colouring of the type is entirely suppressed, the flowers being white and green with a glaucous and somewhat translucent appearance. In the variety *viride* the colours are much more conspicuous and defined. The petals are longitudinally divided into an upper dark green half, and a lower half of bright greenish yellow, with a brown median line running into a greenish yellow tip. The very broad upper sepal is stained from base to middle with clear yellow, traversed by deep green lines. The large pouch is a beautiful yellow faintly tinged with green, while the whitish staminode has two concentric green lines. The leaves are of the ordinary colour, and when first developed have some brownish-red lines on the under surface.

Another magnificent variety, the most beautiful which has yet appeared, has just flowered in the houses at Moortebeek and has an immense highly coloured upper sepal. It has just been painted for the *Lindenia*, and obtained a First Class Certificate at the January Meeting of the ORCHIDÉENNE. We have named it *C. L. Moortebeekiense*.

Cypripedium Lawrenceanum was discovered by Mr. BURBIDGE, in Borneo, in 1878, and is still the most generally cultivated and most popular member of the genus, thanks to the beauty of its foliage, and the size and attraction of its flowers. It has also been frequently utilised by hybridists, and has been

instrumental in producing various remarkable hybrids among which may be cited the following : —

C. × *Lawrebel*, which has been figured in the *Lindenia*, was raised in Sir TREVOR LAWRENCE's collection.

C. × *concolawre*, to which the same observations apply.

C. × *gigas*, by crossing with *C.* × *Harrisianum*.

C. × *enfieldense*, by crossing with *C. Hookerae*.

C. × *Antigone*, by crossing with *C. niveum*.

C. × *Cobbianum*, by crossing with *C.* × *Sallieri*.

C. × *euryale*, by crossing with *C. superbiens*.

C. × *Henry Graves*, by crossing with *C.* × *Marshallianum*.

C. × *Lawrenceo-Regnieri* BLEU, of which a portrait appeared in the preceding volume.

C. × *Numa*, by crossing with *C. Stonei*, etc.

This progeny has been propagated, and many of the hybrids mentioned above have themselves produced other seedlings some of which are of great promise, notably *C.* × *James Buckingham*, which has been derived from *C.* × *enfieldense*.

From a cultural point of view *C. Lawrenceanum* is one of the most robust and vigorous of the warm species. It is advisable to repot it almost every year owing to the rapidity of its development. During the growing period too much water cannot be given, and the compost should be always moist. After growth has been matured the amount of water may be diminished for three or four weeks.

VANDA SANDERIANA RCHB. F.

J. De Bosschere fecit. P. De Pannemaeker chrom.

PL. DXLVII.

VANDA SANDERIANA RCHB. F.

Mr. SANDER'S VANDA.

VANDA. Vide *Lindenia*, I, p. 47.
Vanda Sanderiana. Vide *Lindenia*, I, p. 85.
Var. labello viridi L. LIND. et ROD., in *Lindenia*, l. c.

The accompanying plate represents the type of this magnificent species, of which ten years ago we figured a remarkable variety.

Vanda Sanderiana is the giant of the genus, and certainly the most highly coloured species. By means of its broadly rounded and delicately tinted flat sepals and petals, which, as someone has not unreasonably remarked remind one of certain Miltonias; by its two very distinct lateral sepals, gorgeously netted with purple on a yellow ground; by its short spurless lip, resembling that of *Vanda* or *Arachnanthe Cathcarti*, this species at once excites attention and admiration, and is undoubtedly one of the chief wonders of the warm orchid house.

M. ROEBELEN, to whom the honour of discovering this brilliant species belongs, has related in the *Journal des Orchidées* for 1894 the conditions under which he procured it towards the end of 1881 in the neighbourhood of Davao in the Philippine Islands. After having at first collected some plants which bore no flowers, but which revealed a novelty by their habit, he was suddenly abandoned by the prisoners which had been given him as an escort. « I was then obliged, writes M. ROEBELEN, to descend to the plain, and after a somewhat lengthy palaver with the chief of the tribe, he consented to supply me with any number of carriers provided I handed over everything in my possession, and particularly my umbrella which he wanted for his wife.

« I set out the same day about 10 a. m. and at 6 p. m. reached the dwelling of a transported Spaniard who cultivated a few Cocoa trees around his miserable hut. I remained with him some days in order to pack my plants, and it was he who accompanied me the first day in his little boat, having no servants at his disposal. On landing in the evening I saw at the top of a tree some flowers which appeared to me to be those of a Vanda, and some minutes afterwards, in spite of the very palpable protestations of the ants which disputed my right to the plant, I held the beautiful Vanda in my hand. All my miseries and all my fatigues were at that moment forgotten. It is necessary to have travelled in order to realise the joy experienced at the discovery of a new plant, and that such an one as *Vanda Sanderiana*. — The little plant had three stems and forty-two flowers. »

A certain number of plants was imported some months later, but, probably owing to improper treatment, and to the fact that the species was not re-imported immediately, it became very rare until a fresh introduction was most successfully accomplished in 1895 by the HORTICULTURE INTERNATIONALE. The plants became perfectly, although somewhat slowly, established and their first flowers appeared in the autumn of 1896 and excited general admiration.

The plant from which our drawing was made flowered in the Rue Wiertz establishment, Brussels. The flowers were brilliantly coloured, the petals and upper sepal being more than usually tinted at the base with bright red. Other plants have flowered with Messrs. DALLEMAGNE & C°, at Rambouillet, among which was one particularly striking. It was a fine specimen with a main stem at least 2 ½ feet high (75 centimètres), and two lateral growths almost as tall. This plant has borne five flower-spikes with an aggregate of about 60 flowers, and towards the end of last November presented a magnificent sight.

Vanda Sanderiana requires much the same treatment as the other hot-house Vandas, and the majority of Aërides and Saccolabiums. The chief point to be remembered is to keep the plants as near the glass as possible. They love abundance of light which is indeed indispensible for the production of a profusion of beautiful flowers.

COELOGYNE MASSANGEANA RCHB. F.

J. De Bosschere finx. *P. De Pannemaeker chrom.*

PL. DXLVIII.

COELOGYNE MASSANGEANA RCHB. F.

Mr. MASSANGE DE LOUVREX'S COELOGYNE.

COELOGYNE. Vide *Lindenia*, II, p. 79.

Coelogyne Massangeana. Pseudobulbo pyriformi, foliis petiolatis cuneato-oblongis acutis; pedunculo longissimo deflexo laxifloro, parcissime hinc nigro asperato; bracteis cuneato-oblongis obtuse retusis ovaria pedicellata vix dimidio aequantibus, ovariis parce nigro muriculatis; sepalis ligulatis obtusis, extus linea media carinatis; petalis lineari-ligulatis obtuse acutis; labello trifido concavo, laciniis lateralibus semiovatis antice acutis, lacinia media abbreviata transverse ovali emarginata cum apiculo, carinis ternis crenulatis a basi in basin laciniae anticae; carinulis ibi antepositis alternantibus senis ex papulis retusis multangulis dentes molares humanos aemulantibus, columna antice alata, ala retusa circa androclinium.

Coelogyne Massangeana, RCHB. F. in *Gard. Chron.,* 1878, II, p. 684. — *Fl. Mag.*, n. s., t. 373. — *Bot. Mag.*, t. 6979. — WARN. et WILL., *Orch. Alb.*, t. 29. — WILL., *Orch. Gr. Man.*, 7e ed., p. 207. — *Journ. des Orch.*, VI, p. 63.

Next to *C. cristata*, which rightly deserves to be regarded as the king of the genus, there is hardly any Coelogyne so highly esteemed by amateurs as *C. Massangeana*. This esteem is not so much due to the beauty of the individual flowers as to their great profusion and to the vigour of the plant. There are many species more elegant in form and colour, the graceful *C. ocellata* for example, but there is none — *C. cristata* always excepted — which forms such prodigious specimens and become covered with such masses of flowers. For this reason *C. Massangeana* was the centre of attraction at one of the great exhibitions (Temple Show) held in London in 1894. In the centre of a superb group, one of the principal English amateurs exhibited a vigorous specimen in a hanging basket which was surrounded on all sides by long pendulous racemes of flowers. It was a plant truly worth exhibiting, and thereby indicated the riches of tropical vegetation.

C. Massangeana flowered for the first time in Oct. 1878 in the collection of the well-known Belgian amateur to whom it has been dedicated by REICHENBACH. Curiously enough, notwithstanding its distribution in cultivation, the native country of this species has never yet been clearly indicated. It appears to have been grown prior to 1878 under the name of *C. assamica* and REICHENBACH mentions it as a native of Assam. But the editor of the *Botanical Magazine* is rather inclined to think that it belongs to Malaya.

It very much resembles the Bornean *C. asperata*, but is distinguished from that species by the form and height of its pseudo-bulbs, by the non-pubescent raceme, and by the different shape of the lip.

The flowers are 2 to 3 inches (5 to 7 ½ centimètres) across, with clear

brownish yellow sepals and petals; the outer surface of the lip is greyish, the inner surface of the brown lateral lobes being striped with yellow. The subquadrate anterior lobe is yellow with a whitish margin, has a verrucose disc, and is sprinkled with brown blotches. The figure in the *Botanical Magazine* represents the inner surface of the lateral lobes as purple red, lined with violet-rose, those on the outer surface being blue, but we have never seen a form with these shades.

—

Culture. — *C. Massangeana* should be grown in a hanging basket as its flowers are borne on slender racemes which hang down vertically. It is a species requiring plenty of heat and moisture, and will succeed best in the warm house. Nevertheless it may be moved into a somewhat cooler atmosphere when flowering is over, that is in the autumn, after which it may enjoy a period of rest until March. It is not uncommon for this species to flower twice in one year.

The compost should consist of two parts of fibrous peat to one of sphagnum, and repotting may take place about every second or third year according as the plant becomes too bulky for its receptacle.

CYPRIPEDIUM ×ˆ MASSAIANUM WEATHERS

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DIXL.

CYPRIPEDIUM × MASSAIANUM WEATHERS.

THE DUC DE MASSA'S CYPRIPEDIUM.

CYPRIPEDIUM. Vide *Lindenia*, I, p. 17.

Cypripedium × *Massaianum*. Hybridum inter *C.* × *superciliare* et *C. Rothschildianum* artificiosa fecundatione productum.

Cypripedium × *Massaianum* WEATHERS, in *Gard. Chron.*, n. s., XIV (1893), p. 267, c. ic.

Although perhaps not comparable in beauty with *C.* × *Morganiae* which has recently been figured in this work, *C.* × *Massaianum* nevertheless has some features in common with that magnificent hybrid, and belongs to the same section. The differences between the two are evident and need not be specified. But the relationship rests upon the basis that the two plants spring from a cross effected between parents, very dissimilar in each case, but still more or less allied one to the other. On the one hand we have *C. Stonei* and *C. Rothschildianum* more or less similar in structure, and distinct in colour, and on the other hand *C. superbiens* and *C.* × *superciliare*, the latter being derived from the former, and both having as characteristic features the cylindrical brownish red lip rounded at apex, the wide and beautifully blotched petals, the erect poise, and the regular oval outline of the upper sepal.

These diverse features are all combined in *C.* × *Massaianum*, and it may be said that the flower of this hybrid is almost such as one might have imagined it before its appearance. The petals however remind one more of *C.* × *superciliare* or its ancestor *C. superbiens*, being broad, slightly deflexed, and decorated with numerous blackish purple blotches.

The upper sepal is yellowish white, longitudinally traversed by numerous purple red veins, and somewhat heavily stained with green for two thirds of its height from the base upwards. The lower sepal is almost as large as the upper, while the huge crimson red lip is veined with brownish red. The staminode is much more like that of *C.* × *superciliare* than that of *C. Rothschildianum* but still a slight resemblance to the latter is apparent.

This beautiful plant was exhibited for the first time on July 11. 1893 at the Royal Horticultural Society's Gardens, Chiswick, when it received an Award of Merit.

It is named after the Duc DE MASSA one of the principal French amateurs.

Our drawing was made from a plant shown by Mr ALFRED VAN IMSCHOOT, the well-known Ghent amateur, at a meeting of the ORCHIDÉENNE last October.

INTERVIEWS WITH ORCHIDISTS.

The *Journal des Orchidées* recently commenced an inquiry which will be resumed by the *Semaine Horticole,* and promises to lead to some very interesting results. The following questions have been submitted to the subscribers :

1. How long have you been an amateur?
2. What induced you to become one?
3. Which were the first Orchids you cultivated?
4. Which genus do you prefer, and why?
5. Which in your opinion is the most beautiful Orchid?
6. Which are the eleven kinds you prefer in order of merit?
7. Are your houses situate in the town or country?
8. Do you apply the principles of culture as set forth in *Les Orchidées exotiques et leur culture en Europe* (Exotic Orchids and their culture in Europe) or in this journal, and what do you think of them?
9. To what do you attribute your success or failure in the cultivation of Orchids?
10. Do you apply manure to your Orchids, and if so what results have been attained thereby?
11. Do you hybridise?
12. What influence do you think hybridisation will exercise on the taste for Orchids and on the composition of collections?
13. Do you exhibit? If not, why not?
14. Which do you consider to be the best method of exhibiting? Do you wish to see any innovations or reforms?

It is pretty evident that this inquiry may furnish much useful information if orchidists will only, send in their answers to this set of questions.

That is the real point, as many years' experience have proved that amateurs do not readily sit down to record the information they have acquired. Besides, what progress there would be, what interesting facts would become known, if every one would only say what he observed and what he did in his daily practice.

Anyway the suggestions seem to have met with approval, judging by the large number of replies, and their teachings exhibit a pratical utility of which all orchidists should avail themselves. The first replies published in the last three numbers of the *Journal des Orchidées* are those of the Comte DE BOUSIES (Belgian), Dr VOUGA (Swiss), and M. J. RAGOT (French). Others will appear in the new publication, *La Semaine Horticole,* and the general upshot of the inquiry promises to furnish valuable data as to the tendencies and preferences of the orchidists of all countries.

We shall demonstrate from this time forward that the amateurs whose replies have appeared in the *Journal des Orchidées* all express themselves as favourable to the principles of the Belgian mode of culture.

CATTLEYA LABIATA LDL. VARIETATES

1. ARDENS
2. MONTEBELLIENSIS
3. ALBO MARGINATA
4. LUCIENTE
5. MELUSINE
6. FLAMBOYANTE

PL. DL-DLI.

CATTLEYA LABIATA LDL. VARIETATES.

1. ARDENS.
2. MOORTEBEEKIENSIS.
3. ALBO-MARGINATA.
4. LUCIENNE.
5. MÉLUSINE.
6. FLAMBOYANTE.

CATTLEYA. Vide *Lindenia*, I, p. 15.
Cattleya labiata. Vide *Lindenia*, III, p. 35.

The beautiful varieties shown on the accompanying double plate possess an interest in a certain sense historic since they recall an agreable event to the numerous Belgian and foreign amateurs who found themselves at Brussels on Oct. 25, 1896. They have, in fact, been chosen from the group of *Cattleya labiata* (*Warocqueana*) which bore away the palm in the Franco-Belgian contest which took place on that day.

The history of this contest is interesting, and may well serve as a precedent for future ones which under well-defined regulations would present more interest than many of the ordinary exhibitions.

M. Lucien Linden, with whom the idea of the contest originated, had first of all proposed it to the Ghent amateurs consequent upon a kind of challenge formulated in a letter signed " Un vrai Gantois " and inserted in the *Journal des Orchidées* of Sept. 1st.

The gauntlet not having been taken up, M. A. Dallemagne of Rambouillet, wrote on Oct. 3, urging M. Lucien Linden to resume the idea, and proposed to him a competition between the establishments at Rambouillet and Moortebeek, each to exhibit twelve *Cattleya labiata*. The competition was arranged to take place alternately at Brussels and Rambouillet, and the merits only of the varieties were to decide. The plants at Moortebeek were but recently imported, and had only been eight months in cultivation, whilst the houses at Rambouillet contained magnificent specimens which had been established for years.

The first trial took place on Oct. 25th at Brussels in the gallery of the Horticulture Internationale, which is the usual meeting place of the Orchidéenne. The appointed judges were those of this Society, and included MM. Ch. Van Wambeke, Miteau, De Lombaerde, Lubbers, Ch. De Bosschere, chevalier de Wargny, du Trieu de Terdonck and Vasseur and they awarded the prize to the Moortebeek collection.

The second trial took place at Rambouillet on Nov. 7th and the judges,

MM. A. DE LA DEVANSAYE, OTTO BALLIF, LIBRECK and J. RAGOT, decided " after a careful examination and long deliberation " that the most meritorious group was that of MM. DALLEMAGNE et C^ie^, and offered their cordial congratulations to the two competitors.

Unfortunately the bad weather and the advanced season prevented the " rubber " in this contest from being decided.

The competition was the great event of the autumn and excited considerable interest in Orchidic circles. A large number of amateurs came from all parts of the two countries to admire the plants exhibited on both occasions, and it may be said that the lessons taught under these circumstances will not be forgotten.

The terms of the challenge were also generally approved. It was agreed that the winner should have the right to appropriate a portion of the varieties which pleased him most in the group of his rival. It was a most suitable award in either case, and as may be judged from our plate, is sufficient to excite the emulation of orchidists.

Immediately after the first trial M. LUCIEN LINDEN had some of the most remarkable varieties in the Moortebeek winning group painted, and a brief description of them is given below : —

1. *Var. ardens*. This is remarkable for its intense colour. The petals and sepals are of a bright rose ; the tube of the lip is of a deeper shade, and the front lobe is almost entirely covered with an ornamental dark purple blotch relieved by a narrow white border all round the much crimpled and cut edge. The yellow disc is lightly striped with purple red, and on each side of the throat is a pure white blotch which produces a very striking contrast.

2. *Var. Moortebeekiensis*. This is another variety with remarkable shades of colour, and is an improvement upon the preceding one. A glance at the plate will show that it corresponds well with the type which twenty five years ago was known as *C. labiata Pescatorei*, but it is a very choice form in point of size and splendour. The sepals and the magnificent petals are of a brillant rose colour. The bright rose lip has a beautifully expanded anterior lobe, with a dark purple fanshaped blotch in front of the disc, at each side of which is a white space.

3. *Var. albo-marginata*. This is a very curious and rare variety. The sepals and petals are pale rose, and the lip is a curious combination of white and red, the tube being bright rose as far as the opening, each side of which is white, as is also the entire edge of the front lobe; the remaining portion is ornamented with a large crimson purple blotch.

4. *Var. Lucienne*. The flowers of this are gigantic and of a charming colour. The sepals are of a pale rose washed with a deeper tint towards the edges and in the centre. The extra large petals are also pale rose with bright rose lines radiating from each side of the median line like the feathers of a quill.

The lip has a large deep red blotch in front, lined with a tracery of purple veins, and diminishes in brilliancy towards the edge. The yellow disc has a white blotch on each side, whilst the tube is of a bright rose colour.

5. *Var. Mélusine.* This is quite a distinct variety and falls into a new category. The large and substantial flowers are very attractive, and have soft rose petals and sepals. The tube of the lip is of the same shade bordered with red. The front lobe is of an uncommon colour, being almost entirely white with a small purple-red blotch in front of the throat, and prolonged into eight diverging purple lines. The yellow disc is faintly striped with purple-red, while the very wavy edge of the front lobe is delicately shaded with rose.

6. *Var. flamboyante.* The chief characteristic of this variety consists in the lip being of a wholly purple red colour, and in being devoid of the white blotches usually seen on each side of the throat. Even the disc is so heavily covered with bright red lines that the yellow is scarcely discernible.

The petals and sepals are of a warm rose colour, the former being of good substance and semi-erect.

Cattleya labiata var. Ragotiana. — This new variety was one of the most striking in the Rambouillet group of twelve *Cattleya labiata* which secured the prize in the second trial of the Franco-Belgian competition. It was distinguished by its extremely uncommon colour which was of a uniform soft rose, with neither yellow blotch on the disc nor red in front of it. It produced a fine effect and was greatly appreciated by the judges.

" LA SEMAINE HORTICOLE. "

It gives me pleasure to announce to the subscribers to the *Lindenia* that I am putting into execution a project which I have cherished and thought over for a very long time. My journals, the *Illustration Horticole* and the *Journal des Orchidées* are to be incorporated in a large illustrated journal of general horticulture which **will appear every Saturday,** the first issue being on **January 30th next,** under the title of **LA SEMAINE HORTICOLE.**

The *Lindenia* will continue to appear separately as in the past without undergoing any change.

The orchidic subscribers to **LA SEMAINE HORTICOLE** will lose nothing by the change. A special column headed *Journal des Orchidées* will contain as much information regarding their favourite plants as their bright little journal has hitherto contained. It will be in fact the continuation of it. The remaining points in the programme are as follows :

LA SEMAINE HORTICOLE will be published on the model of the large weekly English journals, such as the *Gardeners' Chronicle, The Garden,* the *Gardeners' Magazine,* etc., and each issue will consist of sixteen large pages printed in three columns, and having numerous illustrations.

The new journal will embrace all branches of Horticulture, Floriculture, Arboriculture, and Vegetable Culture, and will devote special attention to the decoration of apartments, to the installation of greenhouses and gardens, and to the industrial utilisation or management of plants, flowers, and fruits. It will publish periodically descriptions of beautiful collections, and views of the most noteworthy parks in all countries. It will be the " Moniteur " of great horticultural exhibitions.

LA SEMAINE HORTICOLE will be the impartial mouthpiece and also the bond of union among amateurs, horticulturists, and gardeners — a journal teeming with information, and forming a practical guide to cultivation. It will at the same time be a mundane journal and will have a special column devoted to the pleasures of the garden and the park.

The staff of **LA SEMAINE HORTICOLE** consists of the most competent writers on all these subjects, and they will endeavour to make it a journal at once complete, useful, and up to date in its information.

Therefore I will not say " Good-bye " to my dear readers of the *Journal des Orchidées,* but merely " Au revoir. "

LUCIEN LINDEN.

ODONTOGLOSSUM CRISPUM LDL. var. SPECTABILE L. LIND.

PL. DLII.

ODONTOGLOSSUM CRISPUM LDL. var. SPECTABILE LIND.

CRISPED ODONTOGLOSSUM, REMARKABLE VARIETY.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.
Odontoglossum crispum. Vide *Lindenia*, I, p. 99.
Var. regale L. LIND., infra.

A well known English amateur, Mr. DE B. CRAWSHAY, recently communicated to the *Gardeners' Chronicle* some interesting remarks relating to the variations of this celebrated species *Odontoglossum crispum*. Some one had asked him at a recent meeting : " What constitutes a *crispum?* " and Mr. DE B. CRAWSHAY replied thus : —

" I wonder how many of us really know what our reply would be, were we asked by one who said he did not know, and believing us to be better informed, awaited the hoped for information which I think in many cases, would render the " ignoramus " still wiser.

" If all the plants which have been certificated by the Royal Horticultural Society and other Societies the world over, could by any improbability be got together in bloom for the questioner, and : " That is *Od. crispum*, " be told him, as the world's reply, he would probably say : " Oh, " for I feel certain he would never recover the shock to get more breath. He might think to himself : " Well! it's pretty variable at any rate. "

" From the outset in the days of BATEMAN, *O. crispum* was mistaken by him when he saw it, and he renamed LINDLEY'S species after H. R. H. the Princess of Wales. What would he say now were the thousands of much mixed forms to be presented to him?... "

" The true *crispum* I believe, is the spotless form that has a yellow disc to the lip, two yellow teeth at the base, and the two plates at the sides of its channel under the column, only sufficiently raised from the surface so as to expose the ends of the nerves like tiny points. As soon as the yellow usurps more than the disc of the lip, and as soon as spots and marks appear, then I consider that there is an evidence of hybridism. No one can tell the myriads of cross-fertilisations that have taken place. This has been proceeding till one can only fancy there is not a true *crispum* left.... "

There is evidently a great deal of truth in the remarks made by Mr. CRAWSHAY. For our own part we have no doubt but that the intervention of insects in

a state of nature has effected numerous crosses, and has considerably modified the primitive types, and we have already had occasion to discuss analogous theories concerning certain Cattleyas, Laelias or Laelio-Cattleyas — three words for which one would really suffice.

However as it is impossible to fathom these mysteries, we must consider as species in ordinary language, all those closely related forms which differ from each other slightly in colour, in the size of the segments, or in the largeness of the flowers, and are connected with one another by intermediate links. Looking at matters from this point of view, we cannot remove the spotted forms which in all other respects are absolutely similar to the white *O. crispum* described above from the specific group to which they belong.

The variety figured in the accompaning plate thus appears to us to be undoubtedly a *crispum* of the most beautiful type, with flowers superb in form, and resembling those of the Pacho variety, but ornamented with large handsome maroon spots which give it a striking appearance.

Odontoglossum crispum var. spectabile recently appeared in the establishment of Messrs Lucien Linden & C° at Moortebeek among the grand importations received by that firm, and as pointed out the *Gardeners' Chronicle* is highly indicative of the discovery of a new strain.

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Cirrhopetalum Amesianum, Cypripedium exul var. Imschootianum, Dendrobium bigibbum var. albo-marginatum, Epidendrum Capartianum, Eulophiella Elisabethae, Habenaria militaris, Houlletia odoratissima, Lycaste lasioglossa, Miltonia Phalaenopsis, Odontoglossum × excellens var. dellense, Odontoglossum Pescatorei var. Lindeniae, Odontoglossum praestans, Peristeria Lindeni, Phaius tuberculosus, Saccolabium bellinum, Saccolabium Hendersonianum, Selenipedium caudatum var. Uropedium, Sobralia violacea, Stanhopea eburnea, Stanhopea Moliana, Stanhopea Wardii var. venusta, Stauropsis Warocqueana, Trichopilia brevis, Zygopetalum cerinum.

4th Volume

Anguloa uniflora var. eburnea, Bulbophyllum anceps, Bulbophyllum Dearei, Cattleya Aclandiae, Cattleya Alexandrae var. elegans, Cattleya Alexandrae var. tenebrosa, Cattleya × Brymeriana, Cattleya Dowiana var. Statteriana, Cattleya × Hardyana var. Gardeniana, Coryanthes macrocorys, Cypripedium × Leonae, Cyrtopodium punctatum, Dendrobium Macarthiae, Dendrobium nobile var. Cooksonianum, Epidendrum Wallisi, Grammangis Ellisii, Laeliocattleya × elegans var. Broomeana, Miltonia vexillaria var. virginalis, Odontoglossum Insleayi var. Imschootianum, Odontoglossum nebulosum, Stanhopea insignis, Vanda insignis, Zygopetalum graminifolium, Zygopetalum (Warscewiczella) Lindeni.

5th Volume

Angraecum articulatum, Batemannia Colleyi, Brassia bicolor, Cattleya amethystoglossa var. rosea, Cattleya × Hardyana var. Statteriana, Cattleya labiata, Cattleya Mossiae var. Mendeli, Chysis bractescens, Coelogyne Hookeriana, Colax jugosus, Cypripedium Lucienianum, Cypripedium × memoria Moensi, Cyrtopodium Aliciae, Laelia × Oweniae, Laeliocattleya × amoena var. delicata, Lycaste macrobulbon var. Youngi, Lycaste Skinneri var. purpurea, Masdevallia Harryana varietates, Maxillaria callichroma, Miltonia Warscewiczi, Mormodes igneum var. maculatum, Odontoglossum crispum var. Ferrierense, Phalaenopsis Lüddemanniana, Vanda tricolor var. planilabris.

6th Volume

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7th Volume

Cattleya Aclandiae var. tigrina, Cattleya Eldorado var. Lindeni, Cattleya Eldorado var. Oweni, Cattleya Trianae var. Caparti, Cymbidium eburneum, Cypripedium × Dallemagnei, Cypripedium × Gibezianum, Cypripedium Godefroyae var. leucochilum, Cypripedium insigne var. montanum, Dendrobium Wardianum var. Lindeniae, Laelia × juvenilis, Laelio-Cattleya × Cauwenberghei, Laelio-Cattleya × elegans var. leucotata, Lycaste × Imschootiana, Lycaste Luciani, Masdevallia Davisi, Maxillaria mirabilis, Odontoglossum cirrhosum, Odontoglossum cordatum var. aureum, Odontoglossum crispum var. Dallemagneae, Odontoglossum crispum var. ocellatum, Odontoglossum crispum var. Waltonense, Odontoglossum Pescatorei var. Chaberiae, Trichopilia suavis, Zygopetalum intermedium var. peruvianum.

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9th Volume

Catasetum Bungerothi var. aurantiacum, Catasetum imperiale, Catasetum mirabile, Catasetum splendens var. Aliciae, Cattleya gigas var. amplissima, Cattleya Leopold II, Cattleya Mossiae var. amoena, Cypripedium × Félix Faure, Cypripedium × Madame Octave Opoix, Dendrobium nobile var. candidulum, Laelia glauca, Laeliocattleya × Sayana, Laelio-Cattleya × Varjenevskyana, Masdevallia ludibunda, Masdevallia triangularis, Maxillaria Lindeniae, Odontoglossum Edwardi, Odontoglossum × Halli-xanthum, Odontoglossum × harvengtense, Odontoglossum pulchellum var. majus, Phaius maculatus, Schomburgkia rosea, Stauropsis gigantea, Zygopetalum Wendlandi.

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PART LXXIII-LXXIV. FEBRUARY-MARCH 1897.

LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN and LUCIEN LINDEN.

TRANSLATED FROM THE FRENCH BY J. WEATHERS.

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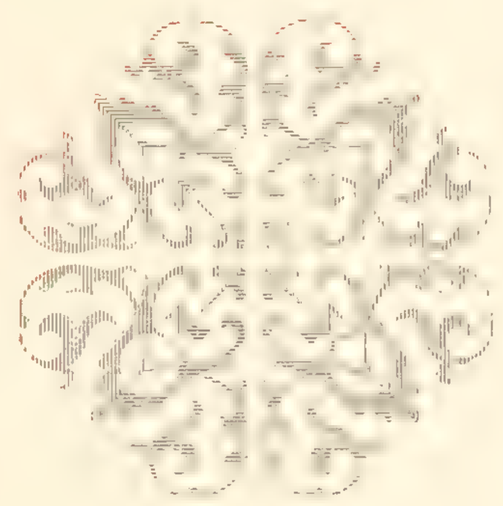

LINDENIA

ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN, and LUCIEN LINDEN.

XIII.

1897.

GHENT,

PRINTED BY EUG. VANDER HAEGHEN.

AL
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ONCIDIUM PHALAENOPSIS LIND. et RCHB. F. var. EXCELLENS L. LIND.

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLIII.

ONCIDIUM PHALAENOPSIS LIND. et RCHB. F. var. EXCELLENS L. LIND.

MOTH ONCIDIUM, SUPERIOR VARIETY.

ONCIDIUM. Vide *Lindenia*, I, p. 37.
Oncidium Phalaenopsis. Vide *Lindenia*, III, p. 57.
Oncidium Phalaenopsis RCHB. F. in *Gard. Chron.*, 1869, p. 416.
Oncidium cucullatum var. Phalaenopsis. VEITCH, *Man. Orch. Pl.*, VIII, p. 30.

Oncidium Phalaenopsis, although a fairly variable species, has never yet perhaps produced such a beautiful variety as that represented by our figure, which in our opinion has every reason to be described by the adjective we apply to it. In the ordinary form, which is to be found in all collections, the sepals and petals are dotted and barred with purple-red in the centre; the side-lobes of the white lip are washed with purple-rose and the disc is also spotted with dark purple.

In the variety now under notice the colouring is of a deeper and more violet tint. The petals especially have large blotches which commingle in such a way so as to leave only a white irregular border all round the edges. In front of the yellow disc the same tint of violet is to be found surrounded by small spots. The flower as a whole is decidedly larger than in the type, and its broad expanded lip with a semi-circular and laciniated front lobe is superb.

This remarkable form rather reminds one of *O. cucullatum* by the colour of the lip, and it may possibly be the result of cross-fertilisation in which the latter species played a more or less prominent part. Although there is a superficial resemblance between *O. cucullatum* and *O. Phalaenopsis*, we consider these two plants to be specifically distinct, as there are many appreciable differences between them, such as the habit of growth, the shape of the petals and sepals, the form of the lip, and particularly the side lobes, the attractiveness of the front lobe, and the structure of the disc, not to speak of the colour which is quite distinct. Indeed, *O. Phalaenopsis* in our opinion is one of the most charming species of the genus, and much superior to *O. cucullatum*.

O. Phalaenopsis was discovered in 1867 by Wallis who was travelling for and under the instructions of Mr J. LINDEN. The new variety which now raises it so eminently in the favour of orchidists also appeared among the importations of M. LINDEN of the HORTICULTURE INTERNATIONALE. It was exhibited at a meeting of the ORCHIDÉENNE on Dec. 13 last and received a First Class Diploma of Honour.

Culture. — *O. Phalaenopsis*, which is a native of the elevated woody regions of the Equator, may be grown in a temperate or cool house with *O. incurvum* and most of the Odontoglossums either in pots or baskets, but we prefer the latter which are perhaps more convenient and graceful for such charming little plants. The compost should consist of peat and sphagnum in equal proportions, and should be watered frequently during the growth of the plant.

O. Phalaenopsis like *O. cucullatum*, requires plenty of light, but should be protected from the scorching rays of the sun, and should be placed in a position facing the east.

CATTLEYA × LE CZAR L. LIND.

J. De Bosschere pinx. *P. De Pannemaeker chrom.*

PL. DLIV.

CATTLEYA × LE CZAR L. LIND.

CATTLEYA. Vide *Lindenia*, I, p. 13.

Cattleya × *Le Czar*. Verisimiliter hybrida inter *C. labiatam* et *C. granulosam*, apud naturam producta; floribus amplissimis, forma et colore inter easdem species intermediis.

Cattleya × *Le Czar* L. LIND. in *Journ. des Orch.*, VII, pp. 260, 274, 290. — *Gard. Chron.*, 1896, pp. 534, 592 (cum ic.).

This magnificent hybrid flowered for the first time last October in the houses of Messrs. LUCIEN LINDEN et C° at Moortebeek, and sprang from an importation received some months previously from that firm's collectors. It was not long before its beauty was recognised as it was exhibited in the group of Orchids comprising the twelve *Cattleya labiata* shown on Oct. 25 in the gallery of the Rue Wiertz in the competition between Moortebeek and Rambouillet. The crowd of visitors present on that occasion were agreeably surprised at seeing such an unusual and un-announced novelty. The judges appointed to decide the first contest in the Franco-Belgian competition were delighted with this superb orchid and wished to give it a name themselves.

Shown two days later at a meeting of the Royal Horticultural Society in London, *Cattleya* × *Le Czar* created another sensation and received a First Class Certificate. In referring to it the *Gardeners' Chronicle* says :

" The honour of taking one of the two First Class Certificates awarded on " this occasion fell to Messrs LINDEN, Park Leopold, Brussels, for the very " remarkable natural hybrid *Cattleya* × *Le Czar* (supposed to be a cross between " *Cattleya labiata* × *C. granulosa*).

" Its nearest affinities seemed to be *Cattteya* × *Victoria Regina*, but in this the " flowers are larger, the petals broader and the isthmus of the lip so much longer " as to give some indications of the influence of *C. granulosa*. It is certainly a " grand Cattleya. „

" The sepals were light lilac with a greenish tinge; the broad petals lilac-rose " with fine purple veining. The side lobes of the lip, which were folded over " the column were blush white; the erected tips purple. The distinct isthmus " connecting the posterior with the anterior portion of the lip was dark red with " rich orange markings, and the broad front lobe bright crimson purple with a " delicate lavender margin. „

Our distinguished London contemporary not content with this description of the new and magnificent hybrid, also published in its issue of Nov. 14 an excellent engraving which showed remarkably well the imposing aspect of the flower even if it did not altogether convey the impression of its brilliant colour.

The flower was represented sideways, and was thus somewhat foreshortened. It measures 9 inches (18 centimètres) across from tip to tip of the petals.

In the note accompanying the engraving in the *Gardeners' Chronicle* are the following appreciative remarks :

" Our illustration gives a representation of a very fine natural hybrid Orchid " exhibited by Messrs LINDEN, L'HORTICULTURE INTERNATIONALE, Parc Leopold, " Brussels, at the Royal Horticultural Society on October 27, when the Orchid " Committee awarded it a First Class Certificate. Reference to our illustration of " *Cattleya* × *Victoria regina* in the *Gardeners' Chronicle*, June 25, 1892, and " comparison with the illustration now given will serve to show that although " there is a certain resemblance, there are yet many points of difference, and " these from a florist's point of view are decidedly in favour of Messrs LINDEN's " plant.... It is a very fine Cattleya and evidently a free grower. „

We think it unnecessary to make any comment on these eulogies which have also been repeated by all the principal London horticultural journals, such as *The Garden*, the *Journal of Horticulture*, the *Gardening World*, and the *Gardeners' Magazine* — the latter expressing itself thus : " *Cattleya* × *Le Czar* is one of the most beautiful and most distinct Orchids recently seen. „

Indeed it seems pretty certain that this spendid introduction will be considered as the most beautiful of the year which has just come to a close.

CATASETUM × SPLENDENS COGN. var. RUBIGINOSUM L. LIND.

H. Leroux binx.

PL. DLV.

CATASETUM × SPLENDENS COGN. var. RUBIGINOSUM L. LIND.

SPLENDID CATASETUM, RUBIGINOUS VARIETY.

CATASETUM. Vide *Lindenia,* vol. I, p. 59.
Catasetum × *splendens.* Vide *Lindenia,* vol. X, p. 51.
Var. rubiginosum L. LIND., infra.

All orchidists will remember the series of sensational discoveries which about two years ago enriched the genus Catasetum. Never perhaps at any period (unless it be 50 years ago during the explorations of Mr. J. LINDEN) have direct importations produced so many first class novelties at one stroke, or so completely and suddenly overturned all the preconceived notions which existed in regard to the extent and horticultural value of the genus. On turning over the pages of our Tenth Volume it is astonishing to see all those flowers such as *C. imperiale*, *C. Luciani*, *C. Lindeni*, *C. mirabile*, *C. Bungerothi* and *C. macrocarpum* in new varieties, *C. splendens* and its magnificent varieties *album*, *Aliciae*, *atropurpureum*, etc., the appearance of which was so joyfully welcomed.

Apparently, however, the supply was not exhausted as we now present another new form belonging to the same group and equally deserving of notice.

Among the various types, which we have just mentioned, all of which resemble each other, and are more or less difficult to describe in detail, that to which the new comer seems to be most nearly related, especially so far as colour is concerned, is *C. Lindeni*, but striking differences between the two nevertheless exist. The plant figured herewith clearly belongs by its form to the *splendens* group. It has more erect and serrated petals, a less ample and more concave lip, and a more pronounced spur — all characters which assuredly point to the intervention of *C. macrocarpum* in the production of this natural hybrid.

As to the colour it will be noticed that the petals and sepals are of a deeper shade of red tinged with brown and covered with large irregular purple spots distinctly arranged in longitudinal lines. The lip is of a deeper yellow, and the red stains which cover the lower portion of this organ are more or less confluent and tinged with brown, while somewhat similar blotches ornament the orifice of the spur. The small purple spots which in *C. Lindeni* are found at the front edge, are replaced in this variety by a transverse band of brownish rose, the outer surface having at the same time lines of brownish rose spots.

It will probably not be long before the new plant occupies a place in most

collections by the side of its predecessors. The genus Catasetum, which, twelve years ago was considered to be composed entirely of botanical curiosities, has suddenly found itself promoted to a high rank among the most ornamental orchids. This mark of favour has had the happy effect of dissipating the unfortunate prejudice which had enveloped Catasetums, namely, that they were very difficult plants to keep alive in Europe. Now, when every one grows them, it is perceived that they are no more difficult to cultivate than Dendrobiums.

THE HYBRIDISATION OF ORCHIDS

In the Orchid Enquiry recently instituted by the *Journal des Orchidées* the following question occurs : " Do you hybridise, and what influence do you think hybridisation will exercise on the taste for Orchids and on the composition of collections? "

A few years ago this would have been regarded as an indiscreet question and would not have had much chance of receiving a reply as the art of hybridising was still confined to a very small number. Jealously guarding their secret, hybridisers shrank like the alchemists of old from the gaze of profane eyes to practise their mysterious arts, and to consummate the great work which should transmute the baser metals into pure gold.

But to-day the art of hybridising has become part of the ordinary routine, and there is scarcely an amateur who is not enticed by the hope of producing wonders. Indeed, does not hybridising provide for the orchidist that amount of fancy and illusion in which man at all ages likes to dabble — in youth, to idealise his dreams of the future; in old age to forget the mortifications of the past? Does it not bestow upon him the legitimate pride of a creative power?

No amateur would dream of comparing the undoubtedly keen satisfaction experienced at the discovery of a rare variety among an importation, with the most profound delight he displays when the first flower of his seedling has opened.

Orchidists should therefore be deeply grateful to the fathers of hybridisation — to Dr. Harris who conceived the idea, to Dominy and Seden who where the first to put it into practice, and who thus opened up the way to a legion of actual raisers in procuring for them an inexhaustible source of ever new delights.

But alas ! if the artificial fertilisation of Orchids and the production of fertile seeds are comparatively easy for a careful worker, and if the germination of these seeds take place with but little trouble, it is not quite the same in regard to the rearing of the young plants. The mortality in infancy, that plague of humanity, carries out its ravages in a not less implacable fashion among Orchids. What raiser has not seen vanish in a few hours all the hopes cherished during years of assiduous care? He has watched during long months the swelling of the pod and the ripening of the seed. Having carefully gathered the seeds, he makes sure of their fertility (for there are now no novices who sow the husks of the unfertilised ovules and are astonished at not seeing them germinate) confides them to a compost more or less suitable, and at the end of a reasonable number of weeks, he has the satisfaction

(*Continued on p.* 12)

CATTLEYA TRIANAE LIND. var. EXORNATA LIND.

PL. DLVI.

CATTLEYA TRIANAE LIND. var. EXORNATA LIND.

JOSÉ TRIANA'S CATTLEYA, VERY ORNAMENTAL VARIETY.

CATTLEYA. Vide *Lindenia*, I, p. 15.
Cattleya Trianae. Vide *Lindenia*, I, p. 63.
Var. exornata LIND., in *Sem. Hort.*, p. 8, et infra.

The flowering period of *Cattleya Trianae*, has barely come to an end, and all orchidists still preserve a glorious remembrance of them, which the innumerable riches of April and May could alone diminish. Thus each year our grateful admiration is renewed; each year also brings some new treasures, and enables us to discover still further beauty in long known species.

During the past season, among the new discoveries which has enriched *C. Trianae*, — already abounding in remarkable flowers — the variety *exornata*, which forms the subject of our plate, may be mentioned as belonging to the first rank.

This variety has a unique, and one may almost say novel aspect among the numerous forms of this species. What first attracts attention is the remarkable contrast existing between the uniform pale rose colour of the sepals and petals, and that of the much more highly-coloured and striking lip. The tube is pale rose, but the edges of the lateral sepals are of a much deeper shade. At the opening of the lip are two white eye-like blotches from which extends an orange band spreading out into a broad annular zone, occupying half of the front lobe, and traversed by radiating lines of red. In front of this is a purple-red triangular blotch with blackish-purple stripes, producing quite a novel shade in *C. Trianae*. The edges of the lip are a delicate rose intensified here and there with a brighter tint.

The flower is superb, and was considered so by the ten judges of the ORCHIDÉENNE, who unanimously awarded it a First Class Certificate of Merit when it was shown at the meeting on January 10 last, although the flower was then past its best. The sepals and petals are particularly broad; the lip is well developed, somewhat oval in outline with the anterior portion expanding in a semi-circular fashion.

In conclusion it is only reasonable to suppose that next season the flowers will be still more beautiful, as those borne this year were produced by a plant only recently imported by the establishment at Moortebeek. It is thus evident that the Cattleya importations of this large firm are quite up to the standard of their Odontoglossums.

(*Continued from p.* 10)

of seeing the minute germs swell up, become green, and show two tiny tips — the first indications of future leaves.

There he is, more proud than ARTABANUS, revelling in enchanters' dreams, enjoying in anticipation the triumph which he will achieve in five years perhaps, more likely seven or eight, nay, even ten or fifteen years — patience being the cardinal virtue of the raiser — when the marvellous hybrid will flower, and will bear down to posterity the glory of his name. He should refresh his memory by again reading the fable of Perrette and her Milk Pail, and one fine morning as he proceeds to view his treasures, he perceives that the seedlings — the source of his pleasure and pride — have vanished as if by enchantment.

It is sufficient that an untimely watering followed by a too sudden fall in temperature, or a too ardent sunray, unless the scale with its protecting coat or the horrible thrip, or one of those tiny slugs, the more formidable because they conceal themselves so readily, may have been the cause of the disaster.

But after all, perhaps the difficulty in raising seedling Orchids is a blessing in disguise from an amateur's point of view. If all the seeds were to germinate and only one plant out of a thousand seeds sown were to reach maturity, the greenhouses of Europe in a few years would be encumbered with hybrids which would soon lose all value because of their too great abundance. Now, in view of the number of hybrids increasing each day, and appearing in competitions and at meetings of horticultural Societies; in view of the thousands of seedlings growing on with nurserymen and amateurs, the opinion is beginning to gain ground that there is no longer much to be done in this way. It would be possible to support this view with a semblance of reason in regard to such genera as Cattleya, Laelia, and Cypripedium to which raisers have hitherto been a little too much confined. But a simple calculation may re-assure the adepts in hybridisation.

Take for example the genus Cypripedium of which about 60 distinct species are known. These 60 crossed one with another may give rise to $60 \times 59 = 3540$ hybrids; about 400 of these have already seen daylight, and thus more than 3000 hybrids of the first degree still remain to be produced. If the 400 already existing hybrids be crossed either among themselves or with the 60 type species, the result will be $400 \times 459 = 183{,}600$ possible combinations representing hybrids of the second or third degree. If we pass on to the combinations of these latter a number of thousands of millions will be reached. There is still therefore good times in store for raisers of Cypripediums, and they may for several generations to come give themselves over to their favourite hobby, before attaining, by the commingling of all the various bloods, the archetype of Cypripediums which will doubtless be a marvel — that is unless it prove a monstrosity, as nature abhors to be violated indefinitely.

Other genera may be submitted to a similar calculation, and one may well stand aghast at the number of possible combinations. Duplicates therefore need not cause any anxiety, and one always has a chance of producing a novelty if not a beauty — that is the point, to produce « the beauty. »

Of what use is artificial fertilisation if the resulting hybrid be inferior to the parents which produced it? How many hybrids, among Cypripediums especially, have seen the light within recent years, and are only fit to disappear again. The knowledge or

(*Continued on p.* 14)

MASDEVALLIA × HENRIETTAE KRÄNZL.

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLVII.

MASDEVALLIA × HENRIETTAE KRÄNZL.

MISS HENRIETTA AMES'S MASDEVALLIA.

MASDEVALLIA. Vide *Lindenia*, I, p. 35.
Masdevallia × *Henriettae*. Hybrida inter *M. igneam var.* et *M. Shuttleworthi* artificiosa fecundatione producta.
Masdevallia × *Henriettae* KRÄNZL., in *Gard. Chron.*, XIII, 1893, p. 740.

This graceful hybrid appeared in 1893 in the celebrated collection of FRED. L. AMES Esq. of Longwater, North Easton, Mass., U. S. A., and Dr KRÄNZLIN described it soon afterwards as follows : " We received three flowers, the general habit of which is very different, in spite of the fact that they were offsprings from seeds of the same vessel. The foliage is scarcely of any interest, but the leaves are shorter stalked than ordinarily in *M. ignea;* the flowers are in size quite intermediate, in general appearance more in the way of *M. Shuttleworthii* than of *M. ignea*. Certainly the range of variability of the flowers is a very great one, and we have at hand two types, one of which is nearer to *M. Shuttleworthii*, whilst the other inclines not to *M. ignea* itself, but shows a form which if found in a wild state would have induced botanists to establish a new species. Whilst the upper sepal is reduced in size, but with the peculiar swinging of the upright tail of *M. Shuttleworthii;* the lateral ones are more lengthened, more oblong in circumference, with tails half as long as in *M. Shuttleworthii*. The tube or calyx is sharp-keeled above, and somewhat longer, also the three veins of the lateral sepals are more visible as in *M. Shuttleworthii*.

The colour is very difficult to describe, all the flowers at hand being different; yellowish tints suffused with very tender purplish stripes and a purplish base of the tube, is not a very sufficient or exhaustive description, but a more specialising one would hardly give a better idea of the general impression of this very pretty and attractive flower. "

We have little to add to the foregoing remarks and the accompanying plate will give a much better idea of this hybrid than any written description.

A glance at the picture will show that the plant reproduced by our artist has more rosy flowers than that described by Dr KRÄNZLIN, and somewhat favours *M. ignea*, being at the same time very attractive.

A large number of hybrid Masdevallias are now in existence, and from this fact it is pleasing to conclude that this genus is at last being raised from the unmerited disfavour under which it has struggled for so many years. One may also presume that artificial hybridisation is easily effected in this genus, notwith-

standing the smallness of the structural organs, and that the easiness of its culture permits seedlings to be raised without much difficulty.

At the time of his death, Mr. AMES's beautiful collection had already produced a certain number of novelties and very interesting seedlings, and promised to give a great impulse to orchid growing in the United States. In this respect his death has been a great loss, but there still exist in that country several fine collections, conducted in an excellent manner, and from these much may yet be expected.

(*Continued from p.* 12)

foresight of a hybridiser consists in estimating approximately the probable results of the combination of two varieties or two species, and not to cross those of which the particular form, colour, size, or appearance may, when commingled, not produce a harmonious result, or indicate a decided advance on the two parents.

Just as good raisers seek for modifications in the case of domestic animals by the most perfect reproducers, or by those of which they desire to fix certain characters peculiar to the breed, so in the hybridisation of Orchids the raiser should restrict himself only to choice varieties for seed bearing or pollen producing purposes.

For a beginner possessed by the demon of hybridisation, it is unfortunately almost impossible to resist the temptation to fertilise even two second rate varieties one with the other when in bloom at the same time, as his still limited collection does not permit of recourse to select varieties.

It should not however be forgotten that the history of hybridisation already presents numerous examples of crosses effected with the same species in several collections, some of which are much superior to others owing to the better choice of parents. It is well known that *Cypripedium insigne Chantinii* has constantly given more beautiful results than the ordinary *C. insigne* from the same cross, and most of the highly-esteemed sub-varieties, to the varietal names of which laudatory adjectives are appended, owe their superiority to the same cause. Another art of the hybridist consists in keeping count of the choice seed-bearers not only those of select varieties but also of the health and vigour of the plant.

If fructification in nature is not prejudicial to the plant, being the accomplishment of a natural function and the final object in view from which all phases of vegetation proceed, it is not less true that in our houses and under our climate it is always a source of fatigue, and may exhaust beyond recovery a weak or only semi-established plant.

What will the future of orchid hybridisation be? In my opinion it is almost without limit and will exercise considerable influence on collections.

When one sees the degree of perfection in form and size, and the diversity in colour, to which the persevering will of man has brought all the genera upon which he has operated, such as Roses, Gladioli, Pansies, Fuchsias, Dahlias, Begonias, Cannas, Chrysanthemums, etc., — when modern varieties are compared with the primitive types found in nature, it cannot be doubted that a similar effort of patience and intelligence would be successful in obtaining as marvellous results among Orchids. And in the Orchid

(*Continued on p.* 16)

CATTLEYA MAXIMA LDL. var. VIRGINALIS L. LIND.

G. Putzys pinx. P. De Pannemaeker chrom.

PL. DLVIII.

CATTLEYA MAXIMA LDL. var. VIRGINALIS L. LIND.

LARGEST CATTLEYA, VIRGINAL VARIETY.

CATTLEYA. Vide *Lindenia,* I, p. 15.
Cattleya maxima. Vide *Lindenia,* I, p. 29.
Var. virginalis L. LIND., infra.

In the general revision of this species, published at page 7 of Volume XI of this work, two main sections were established — one, having comparatively short pseudobulbs, and also comparatively short and few flowered peduncles; the other, which includes *C. maxima floribunda*, having longer pseudobulbs, and longer peduncles with several flowers. The new variety which we now figure belongs to the first section, as does also *C. maxima Malouana* a figure of which appeared in this work some years back. The *Lindenia* has thus been the means of representing two examples from each section — one very bright in colour, the other very pale.

The variety *virginalis*, which appeared some months ago in the importations of the HORTICULTURE INTERNATIONALE, is extremely interesting on account of the contrasts in colour which it presents, and because of its white sepals and petals. The lip is a little more suffused with rose than is that of the variety *alba*, and the petals are veined with faint rose — a feature not existing in the other form.

It may be noted by the way that the variety named *alba* is not entirely white, true albinoism being apparently very rare in *C. maxima*. While other Cattleyas have white forms in which the yellow of the disc alone remains, in this species, the characteristic red lines covering the lip with a graceful network, and the yellow streak dividing them, are preserved in all the known forms of *C. maxima*.

C. m. virginalis is remarkable not only for its colour, but also for the size of its flowers and their graceful appearance. The petals are broader and more extended than in the ordinary type, and the lip is at least half as large again.

The actual re-introduction of *C. maxima* to cultivation is a matter for congratulation. Formerly regarded as a rarity, it now occupies in every collection the prominent position to which it is entitled. From a floral point of view this species is exceptionally valuable owing to the period at which it flowers being prolonged beyond that of *C. Warocqueana*. By its means amateurs can thus count upon having flowers at a season when they are most needed.

(Continued from p. 14)

family, so numerous and so diverse, not only is the field for exploration much more vast, but the bi-generic combinations not realisable in other natural orders with well marked genera, would appear to enter into the range of actual possibility.

What a new field opens up to hybridisation! It will certainly be unnecessary to delude one's self to the extent of crossing an Odontoglossum with a Cattleya, or a Vanda with a Dendrobium. But what surprises may not be produced by skilful raisers from crossing such allied genera as has already been realised from Cattleya and Laelia, Cattleya and Sophronitis, Cattleya and Epidendrum, Epidendrum and Sophronitis, etc. All the Epidendrum tribe, indeed, appear to lend themselves with the best possible grace to these bold combinations.

Whilst in the animal kingdom the mule seems to be stricken with an irremediable sterility and cannot transmit its acquired characters to posterity, with Orchids, on the contrary, the mules or hybrids, even bi-generic ones, produce not only fertile seeds which may not only perpetuate the race, but even lend themselves again to fresh crosses, either among themselves or with the type species, to produce mules or hybrids of second or third degree. Who can foresee the end of these successive crossings and fix the limit of variations which may result from them?

There is also the well known fact that hybrids thus created are generally more vigorous than the parents from which they emanate, and possess a greater resisting force to atmospheric influences and insect attacks. Their flowers are likewise larger and last longer than those of the natural species.

Is not the effect of acclimatisation seen here, that is to say, the accomodation to the surroundings in which these plants are bred and born? And in this respect cannot one perceive the hope of creating a new race of open air orchids which from generation to generation would gradually adapt themselves to the new climate which gave them birth? Among vegetables how many are to-day ordinarily used for the ornamentation of gardens during the summer season, how many species of tropical origin do we not see which when introduced were considered to belong exclusively to the greenhouse?

I do not wish to press the paradox so far as to suppose that baskets embellished with Cattleyas or Odontoglossums may soon be seen out of doors, but it seems to be not at all improbable that we have begun to create by hybridising and repeated seeding races of Cattleyas and Odontoglossums of which the vegetative conditions will become adapted to the climate under which they have been produced, and of which the culture will consequently be more easy and certain than that of plants imported direct from their native country.

It seems to me then that the hybridisation and seeding of Orchids should play an important part in the future, not only from the aesthetic floral point of view but also from the standpoint of horticultural progress.

As to amateurs who think more of the nominal value of their plants, or as rarities, than of their natural beauty; who grow them chiefly for ostentation, like others make a collection of pictures or maintain a stud of coursers, — for these the standpoint certainly varies and they may look upon hybridisation as an abominable evil. The indefinite propagation of these aristocratic flowers will at no very distant date be the means of opening up an era for popular orchids — " Orchids for the million. „

It is evident that when the cotter's wife replaces in spring the traditional pot of

(Continued on p. 18)

CYPRIPEDIUM VICTORIAE MARIAE HORT.

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLIX.

CYPRIPEDIUM VICTORIAE MARIAE HORT.

CYPRIPEDIUM. Vide *Lindenia*, I, p. 17.

Cypripedium Victoriae Mariae. Affine *C. Chamberlainiano*, a quo tamen florum colore differt.

Cypripedium Victoriae Mariae HORT. *Gard. Chron.*, 1893, I, p. 613. — *Orch. Rev.*, Ap., 1896.

The first appearance of *C. Victoriae Mariae* was in 1893 when it was exhibited at a Meeting of the Royal Horticultural Society, London, on May 9th but did not receive any award. At that time *C. Chamberlainianum* was a quite recent discovery, and the new arrival was probably regarded as a variety of that species. It is however distinct enough so far as colour is concerned, and also perhaps by the length and formation of the inflorescence, to be considered a true species, and such is the opinion which still seems to prevail in horticultural circles.

The surprise caused by the introduction of *C. Chamberlainianum* five years ago will be remembered. Although that new species has not realised — far from it — all the hopes which had been centred in it, it still had the merit of representing a type at once curious and quite out of the ordinary. Its flowers, more strange than beautiful, attracted attention by their singular form — the lip being inflated about the middle and attenuated to a point at the base, by the short horizontally twisted petals, the oval shield-like staminode, and by the novel and very varied colour largely suffused with a rosy-wine tint; also, and perhaps more particularly, by their ladder like arrangement on a very tall and many flowered scape, a character which would have been highly appreciated had the flowers only expanded several at a time. Unfortunately they only open in succession, and it is seldom that two are seen open together on the same peduncle.

Notwithstanding these drawbacks the new features of *C. Chamberlainianum* have attracted the attention of orchidists, and especially hybridisers who may hope to make use of its qualities and to lessen its defects by crossing with more highly favoured species.

C. Victoriae Mariae is chiefly distinguished by the colour of the upper sepal which is creamy white, washed and striped with green instead of violet rose, and spotted at the base with the latter colour; by the absence of pubescence on the outer surface of this organ; by the darker colour of the petals, which are neither spotted with rose nor pubescent, and by the colour of the more slender lip which is of a uniform deep violet red, while in *C. Chamberlainianum*, the lip is white and green, and covered with a multitude of violet rose dots, especially towards the tip.

These two species, which appear to be natives of New Guinea, should be grown in the warm orchid house. They are vigorous growers, and are hardly ever out of bloom owing to the flowers being produced in succession.

Our drawing was made from a plant shown by M. G. Miteau, the well-known Belgian amateur, at a Meeting of the Orchidéenne on Jan. 10 last, when a First Class Certificate of merit was awarded.

(*Continued from p.* 16)

Mignonette on her garret window with *Odontoglossum Alexandrae*, and in summer the inevitable Geranium by a *Cattleya Mossiae*, neither snobs nor millionaires will continue to interest themselves in such common plants.

The rich collections of Mr. X., Baron Y. and Lord Z. will then disappear. The stupid biddings at the auction sales of Protheroe and Stevens will also cease, and there will be no more disputes and guinea offers for choice varieties, nor will the portion of a unique variety any longer be worth its weight in gold.

Horticultural Catalogues will then announce to customers the price per thousand, of Orchid Seedlings of one or two years growth, with a discount of 5 per cent. on orders of 10,000 and more, just as at the present day nurserymen offer osiers and conifers in their price lists for plantation purposes.

Seedling Orchids will be purchased and grown in quantity by specialists who supply the markets, and orchids in bloom — fallen from their ancient glory — will lie pitiably stranded on the stalls of the retail dealers of the Quai aux Fleurs, at the Place de la Madeleine, or at Covent Garden, huddled together with pots of Gilliflowers or Marguerites within the reach of the most modest purse. Having enjoyed the riches and happiness of this world they will then become a source of pleasure to humble folk.

At this epoch we shall also see displayed on the outside cover of horticultural journals an advertisement announcing the approaching publication of a practical work on orchids from the pen of one of the most competent and sympathetic orchidologists, under the suggestive title of " Orchids in Europe : The Rise and Fall of a Vegetable Genus to the Twentieth Century. " Such is the accurate and fatidical picture of the probable results of hybridisation. Does it please or sadden ? Having faithfully reproduced the arguments on either side I hesitate to say. And yet, whether fashion bears them to the highest point or abandons them through caprice, orchids will still remain queens among flowers and be preferred by true amateurs who will continue to admire them as one of the most sublime expressions of nature's beauty.

J. Ragot.

CATTLEYA LABIATA LINDL. var. SUPERBA L. LIND.

Georgette Meunier pinx. *P. De Pannemaeker chrom.*

PL. DLX.

CATTLEYA LABIATA LINDL. var. SUPERBA L. LIND.

SUPERB VARIETY OF CATTLEYA LABIATA.

CATTLEYA. Vide *Lindenia,* I, p. 15.
Cattleya labiata. Vide *Lindenia,* III, p. 35.
Var. Lindeni HORT., infra.

The varieties of *Cattleya labiata* figured from time to time in the *Lindenia* have, in our opinion, all been eclipsed by that which we now are so fortunate as to present to our readers. This very handsome species has never yet produced such a splendid form.

Although the resources of lithography are not altogether capable of truly rendering the marvellous richness of sombre purple tones, still the accompanying plate will give orchidists some idea as to the beauty of this variety. The very broad and well extended petals are of a warm rose suffused with rose-purple ; the large broadly rounded lip, waved and crisped at the edges, has the anterior lobe entirely covered with a dark purple-red blotch which extends down into the throat, at each side of which the trace of white and yellow, usually occupying a large space in front of the opening, can scarcely be seen.

By a happy coincidence our present double number contains the portraits of plants chosen from three superb Cattleyas which embellish the orchid houses during the spring season — first, *C. labiata*, closely followed by *C. maxima*, and then *C. Trianae* finishing in winter. What a wonderful vegetable family is that which gives us — not only during the whole year, but particularly at this period of it — such a series of incomparable treasures ! Each one of these, rich in splendid variations, may be utilised by the orchidist to form quite a little collection, and around them may be grouped a multitude of less brilliant and less sensational orchids, but all very remarkable and possessing most valuable qualities. Those plants which to-day appear to be somewhat second-rate, were, scarcely ten years ago, the only consolation of amateurs from October to January when *C. labiata* and *C. maxima* were only represented by a few plants in a small number of select collections.

To day both species are eminently popular, and there is no budding orchid grower who does not wish to have in his collection some beautiful types of both *C. labiata* and *C. maxima*.

THE KING OF ODONTOGLOSSUMS.

At a Meeting of the ORCHIDÉENNE on March 14 in the large hall of the HORTICULTURE INTERNATIONALE, Brussels, the judges and amateurs who visited the splendid show of Orchids that day had the good fortune to see that *Odontoglossum crispum* had not yet ceased to produce marvellous varieties. A really superb variety which had just opened, and to which the judges unanimously and with acclamation awarded the highest prize, was unceasingly admired. It was a small plant from one of Mr. LINDEN'S importations, and its bud had already attracted attention. All the segments were richly spotted and suffused with dark purple, and were at the same time really perfect in form. It was spoken of as the King of Odontoglossums. We overheard an amateur immediately make an offer of £ 200 for this beautiful variety, and we also heard the introducer decline this offer, and receive a further offer of £ 300 from the same individual. *Odontoglossum crispum Luciani* is decidedly a marvel, the *nec plus ultra* of hundreds of thousands of *Odontoglossum crispum* hitherto introduced.

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PART LXXV. APRIL 1897.

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ICONOGRAPHY

OF ORCHIDS

CONDUCTED BY

J. LINDEN and LUCIEN LINDEN.

TRANSLATED FROM THE FRENCH BY J. WEATHERS.

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L'Horticulture Internationale,

Parc Leopold, BRUSSELS, Belgium.

☞ FIRST PRIZE (unanimously) for NEW PLANTS at the ☜ International Horticultural Exhibition of Paris 1895, REVENGE, on the "MATCH" of the International Quinquennial Exhibition of Ghent in 1893, Messrs. LINDEN exhibiting, each time, only *their own introductions*.

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PHAIUS × MARTHAE HORT.

G. Putzys, hinx. P. De Pannemaeker chrom.

PL. DLXI.

PHAIUS × MARTHAE HORT.

PHAIUS. Vide *Lindenia*, IV, p. 91.

Phaius × *Marthae*. Hybridus inter *P. Blumei* et *P. tuberculosum* artificiosa fecundatione productus.

Phaius × *Marthae* HORT., *Journ. of Hort.*, 1894, I, cum ic.

This beautiful hybrid first appeared in public at a meeting of the Royal Horticultural Society, London, on March 13, 1894, when it attracted much attention and was unanimously awarded a First Class Certificate.

The Society's *Journal* described it at that period as having the form of *P.* × *Cooksoni* (*P. Wallichii* × *P. tuberculosus*) but a different colour of a pale nankeen yellow, with the base of the lip striped with purple, the front lobe being washed with bright rose. In *P.* × *Cooksoni* the sepals and petals are clear rose longitudinally shaded with a brownish yellow median band; the basal portion of the lip is yellow, while the anterior portion is suffused with rose on each side and stained with carmine rose.

The resemblance between *P.* × *Cooksoni* and *P.* × *Marthae* is readily explained by the close relationship which marks their origin. In fact the two hybrids have one parent common to both, namely *P. tuberculosus*, and the two other species which have assisted in their production are very near to each other. REICHENBACH expressed the opinion that *P. Blumei* and *P. Wallichii*, as well as *P. grandifolius*, might well be regarded as forms or sub-species belonging to the same type. The editor of the *Botanical Magazine* when describing *P. Wallichii* expressed a similar opinion. The following differences may be noted: *P. Blumei* has wider segments than *P. Wallichii*, and of a deeper shade and somewhat marbled. These differences, however, are not absolutely fixed as the three forms just mentioned are very variable. As to the other parent, *P. tuberculosus*, it is perhaps the most highly valued and the finest of the genus, and is already known to the subscribers of the *Lindenia*, having been figured in the seventh volume.

In a word, it may be seen from our plate that the hybrid now pourtrayed is quite intermediate between the parents, and favours more particularly *P. tuberculosus* in form, and *P. Blumei* in colour. The plant from which our artist prepared the painting was exhibited by Mr. A. VAN IMSCHOOT at a meeting of the ORCHIDÉENNE on Jan. 10 last, when it achieved a great success, the Judges unanimously awarding it a First Class Certificate of Merit.

By comparing it with the descriptions cited above, it will be seen that it comes somewhat nearer *P.* × *Cooksoni*, but this is not astonishing, considering

the well-known variability of hybrids, and as we have just remarked, the close relationship of those now under notice.

Culture. — *P. Blumei*, *P. grandifolius* and *P. Wallichii* are grown in the warm intermediate house, under the same conditions as Dendrobiums, in a compost chiefly consisting of fibrous loam, with a little peat and sphagnum. *P. tuberculosus* requires a warm house temperature with plenty of light and a humid atmosphere; it is more difficult to grow than its congeners and the majority of warm house Orchids.

It is to be hoped that *P.* × *Marthae*, owing to the influence of its other parent, will give less trouble to growers, as one of the common effects of hybridisation is to produce stronger and healthier plants than the species from which they are derived. It frequently happens also that they produce a greater abundance of flowers, and this result seems to have been attained in the case of *P.* × *Marthae* as may be gathered from a glance at our figure.

COCHLIODA MINIATA L. LIND.

G. Putzys chrom. P. De Pannemaeker chrom.

PL. DLXII.

COCHLIODA MINIATA L. LIND.

MINIUM COLOURED COCHLIODA.

COCHLIODA. Vide *Lindenia*, VI, p. 55.
Cochlioda miniata. Hybride inter *C. Nötzlianam* et *C. vulcanicam* apud naturam producta.
Cochlioda miniata L. LIND., *Sem. Hort.*, I, p. 39.

What infinite resources the cool house alone offers to the Orchid amateur! Colours, delicate, soft or brillant; elegance and majesty of forms; abundance of flowers — all these qualities give to the cool house a charm and attraction ever fresh and renewed each season without much trouble or care.

Among plants belonging to this category which attract most attention by the side of *Odontoglossum crispum*, which they show up remarkably well, must be mentioned the Cochliodas, of which *C. Nötzliana* and *C. vulcanica* are the best known. The colour of the first named is a superb scarlet shaded with vermillion, the large substantial flowers closely arranged on the flower-spike producing a great effect. The flowers of the other which are larger, more delicate and less closely arranged on the spike, have a very graceful appearance and are of a beautiful bright carmine rose, the long gracefully arched clusters being very ornamental.

The crossing of these two species should certainly produce an extremely interesting result, and would doubtless have been attempted by some raisers. But nature herself is the first in the field and, as may be seen from a glance at our plate the result is just what one might have expected.

This natural hybrid appeared last January among the importations of the HORTICULTURE INTERNATIONALE, Brussels. It is quite intermediate between *C. Nötzliana* and *C. vulcanica* and as to its hybrid origin there can be no doubt. Its flowers are as large as those of the medium sized forms of *C. vulcanica*, and like that species they have oblong lanceolate sepals and petals, the latter being broader than the former, while the lateral sepals are also longer and more undulate. The colour of these parts are of a glowing red shading to scarlet and carmine towards the middle. The broad, somewhat short and deeply three-lobed lip is intermediate between that of the two species already mentioned and is of a red vermillion colour. The crest is bright yellow as in *C. Nötzliana*, and the wings of the column are carmine rose as in *C. vulcanica*.

The plant seems to be very free flowering judging by its first production of long gracefully-arched and well-furnished flower spikes.

C. miniata, shown at at meeting of the Orchidéenne on January 10, was unanimously awarded on that occasion a First Class Diploma of honour. It appeared a few days later in London, and the English journals spoke of it in terms of great praise.

CYPRIPEDIUM INSIGNE WALL. VARIETATES NOVAE

1. FUSCUM 2. PICTURATUM 3. IMMACULATUM

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLXIII.

CYPRIPEDIUM INSIGNE WALL. VARIETATES NOVAE.

1. FUSCUM. 2. PICTURATUM. 3. IMMACULATUM.

CYPRIPEDIUM. Vide *Lindenia*, I, p. 17.
Cypripedium insigne. Vide *Lindenia*, IX, p. 63.

The fresh plate which we herewith devote to *Cypripedium insigne* will enable one to appreciate at a glance the extent of the variations of this remarkable species, and to compare the merits of the various forms.

The three varieties pourtrayed by our artist were exhibited at a Meeting of the ORCHIDÉENNE on January 10 last, by Messrs. LUCIEN LINDEN & Co. of Moortebeek in a beautiful group which contained not less than thirty distinct and superior varieties, a collection such as could not fail to create a sensation. From them we have chosen to be painted three of the most characteristic varieties, the description of which is herewith appended : —

Var. fuscum. This is a remarkably large flower ; the upper sepal is folded backwards at the base, broadly spreading upwards, and very wavy at the top, while the petals are very long and broad.

The colour of this variety is very striking and uncommon. The whole flower is bright yellow with a tinge of green on the upper and lower sepal, and of brown on the lip ; the petals are delicately striped with brown, and washed with the same colour at the edges, while the upper sepal has a great number of large purple-brown blotches arranged in longitudinal lines. On the whole this variety may be compared to an extremely large *Chantinii* varnished with a wash of bright yellow.

The variety *picturatum* presents a very dark and spotted appearance. The upper sepal, which has a white base slightly shaded with clear yellowish green is covered with a mass of large contiguous blackish purple-brown blotches, somewhat after the fashion of certain hybrids from *C. villosum Boxallii*. The petals present a similar appearance — one very rarely seen on these organs; they are large and broad, the whole of the clear yellow surface being dotted with large brownish-red blotches. The lip is light brown and the staminode yellow.

The variety *immaculatum* is on the whole very pale. The white upper sepal has a greenish yellow area at the base extending upwards a little beyond the centre, and traversed by some very delicate brown lines. The petals are

a pale greenish yellow with several yellowish brown lines running lengthwise down the lower half. The lip is yellowish, washed with pale brown at the tip.

These three varieties have a very distinct, and as regards the two first, even novel appearance. They were selected by the Judges of the ORCHIDÉENNE, from the large group in which they stood, to receive the First Class Diplomas of Honour, the two first mentioned varieties obtaining the award unanimously.

CATTLEYA TRIANAE LIND.
var. DELICIOSA L. LIND.

Georgette Meunier pinx. *L. De Pannemaeker del. et lith.*

PL. DLXIV.

CATTLEYA TRIANAE LIND. var. DELICIOSA L. LIND.

DELIGHTFUL VARIETY.

CATTLEYA. Vide *Lindenia*, I, p. 13.
Cattleya Trianae. Vide *Lindenia*.
Var. deliciosa L. LIND., infra.

The charming variety represented by our plate belongs to the collection of Dr. CAPART, one of the most enthusiastic of Belgian amateur orchid growers, and a Judge of the ORCHIDÉENNE. He showed it before this Society on January 10 last when it received a First Class Certificate of Merit. Although not altogether equalling *C. Trianae imperator* figured in this work last year, it is nevertheless worthy of a place in an iconography as one of the most beautiful forms of *C. Trianae*. Its flowers are large and well proportioned, with a broad rounded lip beautifully shaded with purple red, which is of a very deep tint in front, and encroaches somewhat upon the golden yellow disc.

We have already had occasion to mention some of Dr. CAPART's Orchids and to figure a few of them. The collection of this confirmed orchidist has rapidly increased and may be cited, among others in Belgium, as one which keeps in the front rank of progress, a fact which is proved when we add that Dr. CAPART's conservatories are lighted by electricity. That seems to us to be an excellent idea and in itself reveals the veritable amateur — he who collects plants, not only as in investment for his fortune, retains his position, and occasionally shows visitors over his houses, but also, and more especially, to benefit by it himself and often to imbibe renewed vigour in the contemplation of the beautiful. The installation of electricity enables Dr. CAPART to enjoy the sight of his plants when he returns home after a hard day's work in the alleviation of human suffering, and also to show his friends his collection. Should not the conservatory be one of the chief and most artistic of reception appartments? It must however, be lighted, and for this purpose gas is entirely out of the question. Orchids, and Cattleyas in particular, are not hard to grow; but one of the conditions indispensable to success is the purity of the atmosphere, and the only illumination which enables one to realise it is the electric light.

PHAIUS WALLICHI, P. GRANDIFOLIUS AND P. BLUMEI.

These three plants belong to a somewhat badly defined group. Horticulturally, they retain distinct names, but these are often misapplied and confounded with each other.

As a matter of fact these species differ but little from one another. When describing *P. Wallichi*, the editor of the *Botanical Magazine,* regarded them as being very nearly related. REICHENBACH also expressed the opinion that *P. grandifolius, P. Blumei*, and *P. Wallichi* might be considered as forms or sub-species of the same type.

P. grandifolius is longest known, having been introduced in 1778; it was soon followed by *P. Blumei*, while the introduction of *P. Wallichi* dates from 1837.

P. grandifolius produces a racemose cluster of 12 to 20 flowers on an erect peduncle a foot or more high, each bloom measuring about 4 inches (10 centimètres) across. The sepals and petals are lanceolate acute, with a few longitudinal veins on a yellow ground shaded with pale brownish red, the outer surface being silvery white. The lip forms a tube encircling the column, and expands in front into an ovate-cordate limb, crisped on the margin; it is wholly white, with a deep yellow throat prolonged into a paler stripe of the same colour along the median line; at each side of the opening of the tube is a faint trace of purple rose, while the anterior portion is sometimes spotted with the same colour. The spur is short and curved.

This species varies somewhat and this is explained by the fact of its wide geographic distribution, being met with in the Southern Himalayas, in Cochin China and in Australia.

P. Blumei, which was described by LINDLEY and discovered in Java by BLUME, has broader segments of a deeper colour and is distinctly mottled.

P. Wallichii has somewhat larger flowers, with narrower linear lanceolate sepals and petals of a brownish yellow, the outer surface being of a grayish white colour. The ovate lip, which folds over the column and has a reflexed tip, has an orange tube, and a yellow disc lightly striped with red and bordered with red on each side.

This form is often met with in gardens under the name of *P. Manni;* it is also very variable, and collectors have come across four differently coloured varieties.

These species of Phaius should be grown in a warm intermediate house in a compost of fibrous loam, with a little sphagnum and peat. *P. grandifolius* seems to require a little less heat, and may very well be grown during the middle of summer in the Cattleya house.

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PART LXXVI. MAY 1897.

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ODONTOGLOSSUM CRISPUM LINDL. var. KEGELJANI L. LIND.

P. De Pannemaeker et fils chrom.

PL. DLXV.

ODONTOGLOSSUM CRISPUM LINDL. var. KEGELJANI L. LIND.

Mr. F. KEGELJAN'S VARIETY OF *O. CRISPUM*.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.
Odontoglossum crispum. Vide *Lindenia*, I, p. 101.
Var. Kegeljani L. LIND., *Sem. Hort.*, I, p. 89.

This is one of the beautiful varieties recently referred to when speaking of the importations which the establishment of Messrs. LUCIEN LINDEN and Co., at Moortebeek, has been fortunate enough to obtain.

O. crispum Kegeljani is a form with a rare and remarkable colour. Its flowers are very much spotted with reddish brown, but the spots, contrary to what is usually seen, are very numerous and are scattered all over the surface; they almost entirely cover the sepals, being disposed in large masses, while they are smaller on the petals, in the centre of which they are chiefly clustered. The spots are distinctly visible on the outer surface of the segments to which they give a somewhat redder tint. A large oblong blotch decorates the anterior portion of the lip, which is otherwise covered with small spots at the sides and on the yellow disc; in addition the fringed edges are dotted with rose which gives a charming effect. All the segments are broad and well-shaped, and the flower as a whole is large and exquisite. The colour of this remarkable variety bears some resemblance to that of *A. Andersonianum*, and it is very likely that cross-fertilisation, as recently suggested in an article by Mr. DE B. CRAWSHAY, has played a part in the development of these two plants. But the segments of *O. Andersonianum* lack the size of this beautiful rounded form, and we are thus obliged to consider the subject of our plate as belonging to the Pacho variety of *O. crispum*.

Exhibited at a meeting of the ORCHIDÉENNE, on February 14th, *O. crispum Kegeljani* was unanimously and by acclamation awarded a First Class Diploma of Honour; it also received an Award of Merit at the Royal Horticultural Society's meeting in London on March 9th last. It is dedicated to Mr. F. KEGELJAN, one of the founders of the Brussels Society, and one of the most courteous veterans among Belgian amateurs.

ORCHIDS AT HOME

British Guiana. — Several years ago a Demerara journal published some interesting observations on the cultivation of Orchids and their natural life in that region. Here are a few extracts from them : —

" In the cultivation of Orchids it is necessary to remember that they exist upon " the gases and watery vapour which they imbibe from the atmosphere, and that they " require a tolerably calm situation, as very strong winds are extremely injurious to " them. The north and east winds which prevail at certain seasons parch them up, " and ultimately hill the plants if allowed free play upon them.

" When the atmosphere is calm, and the soil well watered a current of moist " air continually rises from the earth, and thanks to this the atmosphere remains in " a most favourable condition for the culture of epiphytes upon dwarf trees. Certain " species require very little shade provided they be well protected on the windy side " by a screen of foliage ; others require a canopy of leaves to break up the force of " the sun-rays.

" Two of the most robust and beautiful of these Orchids (*Oncidium Lanceanum* " and *Cattleya superba*) are fairly common about Georgetown, and are very often the " last survivals of a large number of species. They accomodate themselves to a drier " atmosphere than that required by others, and do not flower if too much shaded.

" A well grown Orchid has plump pseudobulbs and stiff and substantial leaves : " if shaded too much the leaves become limp and drooping, and if kept too dry, they " shrivel and drop off.

" It is a good plan to fix epiphytes to the under surface of branches, or on " the trunk beneath a fork in such a way that they receive moisture from the dews " or rains which trickle down the bark. Until the plants are furnished with roots, " they should be attached by means of wire, and once they are established this fastening " may be dispensed with, being no longer necessary and only a preventitive to growth.

" In the cultivation of epiphytes many kinds of pots and baskets are used. The roots " should not come in contact with anything stagnant or foul, and rotten wood is " poisonous to them. Strong and healthy plants thrive well on blocks of wood or on " rocks, but open baskets made of strips of wood are to be preferred for the majority " of species. Many succeed better in pots than in any other way, especially in " greenhouses.

" The pots and baskets should be filled with a material which is at once porous " and at the same time retains moisture. For cultivation in the open air, broken pots, " pieces of brick, and charcoal do very well ; but for conservatories fibrous peat and " sphagnum are better. It is advisable to dip the plants occasionally in order to get " rid of woodlice and cockroaches.

" As watering will depend upon the period of the year, and on the conditions under " which the plants are placed, it is impossible to formulate any definite rule, save " one, namely, that less water is required during the period of flowering. When Orchids " are in a well-ventilated place they cannot be watered too much, but in close and " moist quarters, excessive watering will rot them. "

(*Continued on p.* 32)

ODONTOGLOSSUM CRISPUM LINDL. var. AMI CHARLES L. LIND.

G. Putzys pinx. *P. De Pannemaeker et fils chrom.*

PL. DLXVI.

ODONTOGLOSSUM CRISPUM LINDL. var. AMI CHARLES L. LIND.

Mr. CHARLES VAN WAMBEKE'S VARIETY OF *O. CRISPUM*.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.
Odontoglossum crispum. Vide *Lindenia*, I, p. 101.
Var. Ami Charles L. LIND., infra.

This delicate and exquisitely charming variety of *Odontoglossum crispum* recently flowered at Moortebeek. The segments of the flowers are very broad and the general appearance is that of the finest Pacho type. The sepals, which are tinged with rose down the centre, have a few irregular chocolate-coloured blotches. The petals are decorated with numerous chocolate-brown dots, grouped on each side of the median line, and with two or three larger spots near the apex. The lip is heavily dotted with brown, and has a large brown blotch in front of the disc.

This variety is one of the most graceful which has appeared for a long time. It is named in compliment to Mr. CHARLES VAN WAMBEKE, the Brussels amateur, some of whose choice Orchids we have had occasion to refer to as well as to figure.

Odontoglossum crispum var. Ami Charles was exhibited at a meeting of the Royal Horticultural Society, London, on March 9th last, and received an Award of Merit. It also obtained a First Class Certificate at the exhibition of the Royal Botanic Society, Manchester, on March 16, and a First Class Diploma of Honour was unanimously awarded at a meeting of the ORCHIDÉENNE, Brussels, on March 14.

Orchidists will see described, one by one, in the column headed " The Golden Book of Odontoglossums „ which has just been opened by the *Semaine Horticole*, the grand varieties which have hitherto appeared in this " sublime genus. „ This happy idea will enable new and beautiful varieties to be made known immediately they appear in collections, and before they can be reproduced by chromo-lithography.

This year more than ever will be an Odontoglossum year!

(*Continued from p.* 30)

Here are also a few notes published in the *Gardeners' Chronicle* relating to the habitat of *Cattleya Lawrenceana* :

" This plant does not occur actually in the Roraima, as seems to have been " supposed in England, but along the bed of the Kookenaam River, where it flows " along the base of the South side of the twin mountains of Roraima and Kookenaam, " at a level of only about 3750 feet above that of the sea, and not of from 6000 to " 8000 feet as would be the case did the plant come from the Roraima itself. "

The author of these notes having also sent a sketch showing Mount Kookenaam on the background, continues : —

" The stream in the sketch is the Kookenaam River, which here runs along the " bottom of a deep channel which it has cut for itself through the surrounding bare " savannah lands. In the shelter afforded by the high banks of this channel, among " the countless blocks of stone, of all shapes and sizes, which here occupy the bed " of the stream, grow many shrubs and stunted trees, and some few trees of greater " height.... It is on the trunks and branches, often big and gnarled, of the shrubs " and trees down in this gully that *Cattleya Lawrenceana* grows in abundant splendour. " Even as I was making the sketch I saw on a tree close to me two most magni- " ficent clumps of this Orchid, on a tree overhanging the bathing pool of the Arekoona " village of Teroota, the better of the two having five spikes of flowers, of which " one bore nine, each of the others eight blossoms, in all forty-one, of some of the " largest and finest Cattleya flowers ever seen on a single small plant, the roots of " which easily lay on my extended hand.

" Our Christmas decorations that day consisted of an enormous pile of these " flowers. And these were gathered after the Indians employed by Mr. SEIDEL had, " day after day for many weeks, collected from that immediate neighbourhood two, " three, or even six enormous basketfuls of this plant, each basket a strong man's " load. These baskets, by the way, as many of the plants happened to be in full " bloom, were strangely beautiful. The Indians asserted that the Cattleya, which they " expressively called by a word which means " blossom of the wood " (trunk), grows " also along several of the other similar streamlets in the neighbourhood, though, " they added, not always so large and fine in form. "

ODONTOGLOSSUM CRISPUM LINDL. var. LINDENI HORT.

G. Putzys pinx. *P. De Pannemaeker et fils chrom.*

PL. DLXVII.

ODONTOGLOSSUM CRISPUM LINDL. var. LINDENI HORT.

Mr. J. LINDEN'S VARIETY OF *O. CRISPUM*.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.
Odontoglossum crispum. Vide *Lindenia*, I, p. 101.
Var. Lindeni HORT., *Sem. Hort.*, I, p. 58. — *Gard. Chron.*, XXI (1897), p. 269.

Odontoglossum crispum var. Lindeni, which is dedicated to him who discovered the type of this marvellous Orchid more than fifty years ago, flowered for the first time last February with Messrs. LUCIEN LINDEN & Co., at Moortebeek, among an importation which had been received in May 1896. Although the plant is still weak, having only three pseudobulbs and one lead, yet the four flowers borne on the frail spike were comparatively speaking very large. So as not to weaken the puny plant too much, it was deemed prudent to let it flower for a few days only. The plant however is quite healthy and there is no doubt that next year it will be seen under more favourable conditions.

What first attracted our attention were the perfect form of the flower and the two distinct shades of the blotches — that on the petals being a beautiful rich rose, while on the other segments it is a pale brown — the two colours thus presenting a unique contrast.

So far as our own choice is concerned we would place *O. crispum var. Lindeni* in the first rank by the side of the marvellous *O. c. Luciani*, the famous *augustum* of Mr. JULES HYE, and Baron SCHRÖDER's *apiatum*, to all of which it is equal.

The houses at Moortebeek, which contain many thousands of plants all in vigorous growth, already comprise an extremely rich collection of fine varieties and I should be very much astonished if the following among them were not worthy of mention, viz : *procerum*, *Adrianae*, *Ruckeri Margaritae*, *R. excelsior*, *magnificum*, *musaïcum*, *bellum*, *mirabile*, *Wilckeanum Leopoldi*, *W. tigrinum*, *W. luteum*, *W. decorum*, *W. nobile*, *W. castaneum*, *W. grande*, *W. illustre*, *W. aurosum*, *W. formosum*, *W. albescens*, *W. splendens*, *W. spectabile*, etc., and out of this enormous number of plants about two thousand have flowered up to the present.

PHAIUS GRANDIFOLIUS AND P. WALLICHI

We have again recently experienced a difficulty in distinguishing between certain forms of these species and *P. Blumei*. Intermediate forms are met with and may just as well be referred to one species as to the other, and there are also others so distinct that they cannot be definitely referred to either one or the other although obviously belonging to the same group.

It appears to us however that there is a method by means of which this question may probably be settled, and this consists in observation of the seed pods.

It is known that these vary a great deal in form in the same genus, according to the species. For example the greatly elongated seed pod of *Epidendrum nocturnum* measures over 4 inches (11 centimètres), while that of *E. nemorale*, which is much more enlarged and forms a kind of regular hexagon in cross section, does not exceed an inch and a half (4 centimètres) in length. Among Cypripediums, Dendrobiums, Masdevallias, and Odontoglossums all orchidists have doubtless noticed remarkable differences of a similar nature.

It would therefore be interesting to study and to compare the seed pods of *Phaius grandifolius*, *P. Blumei*, *P. Wallichi* and various doubtful forms. Amateurs might very readily assist in this transaction, being, free to cut the capsule as soon as it has been well developed if they fear exhausting their plants. It would only be necessary before fertilising each flower to note its colour with great accuracy.

We would also direct the attention of amateurs who are willing to make observations on this genus to the great use of making a transverse section of the pod in the middle. A sketch of the whole does not show nearly so well the arrangement and development ot the angles which are nearly always in evidence, and which are formed by the sutures of the pods and sometimes by a kind of intermediate nerve.

ODONTOGLOSSUM CRISPUM LINDL. var. LUCIANI HORT.

G. Putzys pinx.

P. De Pannemaeker et fils chrom.

PL. DLXVIII.

ODONTOGLOSSUM CRISPUM LINDL. var. LUCIANI HORT.

Mr. LUCIEN LINDEN'S VARIETY OF *O. CRISPUM*.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.
Odontoglossum crispum. Vide *Lindenia*, p. 101.
Var. Luciani HORT., *Gard. Chron.*, XXI (1897), pp. 210, 268.

Odontoglossum crispum var. Luciani was exhibited in London on March 23, and excited the admiration of well known connoisseurs at the meeting of the Royal Horticultural Society. It was the only Orchid on the occasion referred to which received a First Class Certificate — an award which the London Committee scarcely ever gives to an old, well known, and variable species unless it be a variety of exceptional merit indeed.

In addition Messrs. LUCIEN LINDEN & Co. who exhibited this marvellous plant, also received the Banksian medal for the group of Odontoglossums of which it formed a part, and of which each plant was worthy of a detailed description.

In the report of this meeting in the *Gardeners' Chronicle* the following appreciative remarks occur : " The gem of the group was *O. crispum Luciani* " which secured the only First Class Certificate awarded. The flower was perfect " in shape, white tinged with rose and blotched with several large purple brown " blotches on each segment — a truly grand flower. "

We have little to add to this favourable criticism of an eminent connoisseur beyond commenting upon the accompanying plate from which the reader may judge for himself as to the perfect beauty of the flowers. The segments are very large, especially the splendid petals which have denticulate edges, and are heavily marked with large bright reddish-brown blotches which form a striking contrast to the white ground. The lip is also covered with a large number of blotches more dense towards the apex but reduced to dots at each side of the crest. One might almost say that this marvellous Odontoglossum is the twin of *O. crispum augustum* but we are inclined to prefer it to that variety owing to its excellent form which is that of the best Pacho variety. For several reasons however we would rather leave the decision in the hands of our readers.

Is it not astonishing that such a popular species as *Odontoglossum crispum*, which was introduced in 1842, and has been collected each year since in hundreds of thousands, should still have such surprises in store for amateurs ?

Quite recently a very prominent orchidist with whom we were talking about

the inquiry started in the *Semaine Horticole*, and who is particularly prejudiced against hybridising, remarked : — " I recognise the inconveniences, the troubles, " and defects of hybridisation; but admit that it will be useful now to enable us " to produce novelties as we cannot hope for any more very sensational disco- " veries from tropical explorations. „

It seems to us that our interlocutor in speaking thus was guilty of ingratitude to nature. One might say on the contrary that she had taken care to spread out her discoveries and to deliver up her treasures only in such a gradual way as to always furnish us with new pleasures.

The last ten years have contributed their proportion of novelties as brilliant and almost as rich as in the glorious years when the genus Odontoglossum for example presented its marvels for the admiration of the first orchidist. Speaking of this genus alone and of its most celebrated species, *O. crispum*, is it not surprising that the region containing it, which for many years past has been overrun and ransacked by so many collectors, can still conceal such a number of new and magnificent forms? Is it not also somewhat astonishing that they are confined to some particular district, and that the fortunate collector who happens to alight upon this spot gathers in at one cast of his net so many incomparable plants that one of them alone is sufficient to create a sensation?

During the last year and a half *Odontoglossum crispum* has been enriched by the following list of remarkable varieties, viz : *augustum*, *calos*, *meleagris*, *citratum*, *Lindeni*, *Kegeljani*, *Hyeanum*, *magnificum*, *Ami Charles*, *regale*, *Franz Masereel*, *procerum*, *Ashworthianum*, *spectabile*, and last of all *Luciani*, which is the brightest jewel in the crown.

With the varieties, natural hybrids such as *O. Wilckeanum* and its varieties, *rufum*, etc., *O.* × *spectabile*, etc., which are a few of the most remarkable, are equally deserving of special mention. At Moortebeek and the Horticulture Internationale, are many other exquisite forms, unnecessary to enumerate, which two years ago would have caused a sensation, but they cannot be compared with the others.

Is it still necessary to refer to the superb additions which have enriched Cattleyas, Catasetums, Zygopetalums, etc.? We think we have justified our opening statements, and have demonstrated that the direct importations of Orchids, far from diminishing, are as rich and as beautiful as ever.

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PART LXXVII. JUNE 1897.

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J. O'B.— GARDENERS' CHRONICLE, *April* 28, 1894, *p.* 528.

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ODONTOGLOSSUM × CIRRHO-HALLI L. LIND.

G. Dairy, pinx. P. De Pauwemacker, chrom.

PL. DLXIX.

ODONTOGLOSSUM × CIRRHO-HALLI L. LIND.

ODONTOGLOSSUM. Vide *Lindenia*, I, p. 11.

Odontoglossum × *cirrho-Halli*. Hybridum inter *O. cirrhosum* et *O. Halli* artificiosa fecundatione productum. *Odontoglossum cirrho* × *Halli* L. LIND., *Sem. Hort.*, I, p. 109.

Odontoglossum hybrids always attract more attention than any other Orchid hybrids on account of their great rarety and the difficulty experienced in obtaining them. In the houses of the HORTICULTURE INTERNATIONALE, Brussels, an Odontoglossum hybrid has just flowered. It is the result of a cross between *O. cirrhosum* and *O. Hallii*, and is so obviously intermediate between the two parents that there is no difficulty in recognising the origin at the first glance.

The sepals and petals are oblong-lanceolate, very wavy on the edges, and tapering to recurved and falcate points. They are pale yellow, faintly tinged with green, and studded with numerous blackish brown eyelike blotches, as in *O. cirrhosum*. The spots towards the outer extremity of each segment, however, are larger than the others, while the white base of the petals is also striped with purplish brown rose. The lip is furnished with two large rounded lobes at the base, as in *O. cirrhosum*, and is prolonged in front into an acute tail. It has the same colour as the other segments, with a deep yellow disc.

This beautiful hybrid has the merit of uniting to the graceful form, which it derives from *O. cirrhosum*, the richness of colour which one admires so much in *O. Hallii*. It possesses, besides, an exceptional interest, inasmuch as it may help to elucidate the origin and parentage of several plants introduced directly from Tropical America, which have been from the first considered as natural hybrids.

Among the most prominent and best known of these plants may be cited *O. elegans*, which in all probability is a natural hybrid between *O. cirrhosum* and *O. Hallii*, and also *O. Hinnus*, which REICHENBACH considered to be a hybrid of similar origin when describing it.

According to this description, *O. Hinnus* has narrow, lanceolate, undulate sepals and petals of a yellow and cinnamon colour. The lip, similarly coloured, is narrow with a sub-hastate base, at first very broad, then sharply contracted. This description is not sufficient to settle the identity of this plant with *O.* × *cirrho-Hallii*, although it does not contradict it.

Messrs. VEITCH in their *Manual* have ranked *O. Hinnus* as a variety of

O. luteo-purpureum, but REICHENBACH was certainly closer the mark in placing it near *O. elegans*.

We may add that this latter plant appeared in an importation of *Odontoglossum cirrhosum*, thus constituting one of the first proofs, while the colour and form of the crest, on the other hand, strongly indicate the influence of *O. Hallii*. Then comparison with the artificially-raised hybrid, shown on the accompanying plate, helps to confirm the community of origin, taking everything into account of course, to a certain extent, in regard to the well known variability generally prevalent among hybrids.

CATTLEYA TRIANAE LIND. var. EMINENS L. LIND.

PL. DLXX.

CATTLEYA TRIANAE LIND. var. EMINENS L. LIND.

SUPERIOR VARIETY OF *C. TRIANAE*.

CATTLEYA. Vide *Lindenia*, I, p. 15.

Cattleya Trianae. Vide *Lindenia*, I, p. 63.

Var. eminens. Floribus amplissimis; sepalis candidis, petalis pallide roseo suffusis, labello pallide roseo, purpureo-rubro maculato, albo marginato.

Var. eminens L. LIND., *Sem. Hort.*, I, p. 8.

This beautiful variety first appeared last season in the establishment of Messrs. LUCIEN LINDEN and Co. at Moortebeek, near Brussels, among some importations which had been received the previous year. It was shown at a Meeting of the ORCHIDÉENNE on January 10, and received a First Class Certificate of merit.

It is remarkable for the great size of its flowers and the vivid contrast of colour which they display. The very broad, almost round petals, which have very wavy edges, are a pale rose colour, while the sepals are pure white. The lip has a pale rose tube, somewhat more highly coloured at the edges, and exhibits a broad carmine-purple red blotch on the anterior lobe bordered in front with a thin white band, while the yellow disc is surrounded by a white zone at the opening of the tube. On the whole this is one of the most perfect forms of *C. Trianae* in cultivation.

WHAT CONSTITUTES A BEAUTIFUL CATTLEYA MOSSIAE?

Since the latter part of April, we have received a certain number of Orchid blooms, and especially many of *Cattleya Mossiae*, sent by subscribers who ask " What is this variety? " and also " Is it a good variety? "

We reply to our correspondents to the best of our ability, but questions of this kind suggest two generally unfavourable observations concerning which we here wish to speak in detail.

First of all, what may be called a " good variety " of *Cattleya Mossiae?*

In the opinion of good judges, the qualities to be looked for in a fine variety are as follows : — a bright colour, that is to say, the sepals and petals should be bright rose; the lip blotched with brilliant purple red, and the yellow blotch at each side of the opening very brilliant and well defined; size, that is to say, all the segments should be large; then a good appearance, with sepals and more especially the petals well open and spreading, the petals being gracefully recurved like the wings of a bird in full flight. These characteristics are to be found in *C. M. Linden's Champion, Empress Queen, Moortebeekiensis, Lucienne, John Schulz, Amis Alexis, triumphans, exquisita*, etc., which are perhaps the most imposing forms we have yet seen.

If " rules for judging " Cattleyas were formulated, and especially for *C. Mossiae* that is doubtless the lines upon which they would be drawn up ; but they would not be complete without the addition of a few remarks.

The type just described is that generally most highly esteemed among the existing forms of *C. Mossiae.* It is a choice from among a crowd. There exist however very rare and much appreciated forms, which do not altogether conform to this type. In the first place, and as an example of the exceptions, we may mention the white varieties which are exceedingly rare. There are also varieties which have only the sepals and petals white, and these are sometimes highly esteemed, such as *C. Mossiae alba coelestis,* which has flowered for the first time at Brussels and has been figured in the *Lindenia.* This remarkable variety has a white lip with a large orange-yellow blotch on the disc and the edges of the throat, and some bright lilac lines in front. In *C. Mossiae Reineckiana,* the lip is decorated with a graceful tracery of more or less spreading red lines, and Mr. PIRET'S *C. Mossiae variabilis* has white segments, a red lip lightly tinged with violet, and each side of opening striped with yellow and buff. This last variety however has flowers smaller than usual and a quite different but always beautiful appearance, and may perhaps be a natural hybrid rather than a variety of *C. Mossiae.*

Other distinct forms may also merit the title of " good varieties " if they possess a rare colour in conjunction with a good aspect and large segments — features which should always exist. At the same time personal taste always reserves its rights when it is a question of choosing between two varieties which come under this category and exhibit these qualities.

As to the names of varieties, they are not often easily indicated owing to the

(*Continued on p.* 42)

CYPRIPEDIUM × PAULI HORT.

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLXXI.

CYPRIPEDIUM × PAULI HORT.

Mr. PAUL MITEAU'S CYPRIPEDIUM.

CYPRIPEDIUM. Vide *Lindenia*, I, p. 17.

Cypripedium × *Pauli*. Hybridum inter *C. insigne Chantini* et *C. villosum Boxalli* artificiosa fecundatione apud exc. G. MITEAU productum.

Cypripedium × *Pauli* first appeared in 1894, having been obtained by Mr. G. MITEAU, the well-known Belgian amateur, by fertilising *C. insigne Chantinii* with the pollen of *C. villosum Boxallii*. It was shown at a Meeting of the ORCHIDÉENNE on January 14, when it received a First Class Diploma of Honour. At the following Meeting on February 11, the raiser exhibited a new and more highly coloured form of it, which was awarded a First Class Certificate of Merit, under the varietal name of *eximium*.

The crossing of *C. insigne* with *C. villosum* is one of the most fortunate in the genus, and it is also the source of the largest number of diverse forms. Thus, in the year following the first flowering, Mr. G. MITEAU again exhibited at a Meeting of the Brussels Society a series of hybrids raised from the same cross, which were so distinct, that one would have hardly guessed, unless told before hand, that they all had the same origin. Some had a very light colour, like that figured in our plate, others were very dark, while the blotches on the upper sepal were more or less numerous or scarce, &c.

These differences are easily explained when it is remembered that the two parents, and particularly *C. insigne*, are extremely polymorphous; and it will suffice to show the wide range, to mention that *C. Sallieri* is generally believed to be the result of the same cross which has produced many reputed hybrids.

C. × *Pauli* is quite intermediate between its two parents. From *C. insigne* it derives its light colour, good appearance, the clear yellow blotch which covers two thirds of the lower portion of the upper sepal, and the broad white band at the apex of this segment; while *C. Boxalli* supplies the large and well-formed petals, and the shape of the upper sepal the edges of which are folded backwards at the base. The magnificent cluster of purple-brown blotches, which extend almost to the apex of the upper sepal, and assume a more violet tint on the white border, remind one a little of both parents, but more especially of *C. insigne*. The influence of *C. villosum* is shown chiefly in the size of the flowers and the form of the petals, as is the case in most of the crosses in which it has been employed.

Mr. GEORGE MITEAU is one of the principal Cypripedium amateurs and

connoisseurs in Belgium deserving of mention, and his charming collection at Jette-St-Pierre, near Brussels, consists of very choice and well-cultivated plants of noble Orchids. He described and accounted for his passion two years ago in the *Journal des Orchidées* with great ability and a contagious enthusiasm which could not fail to make converts. Many other first-class seedlings will doubtless issue from his collection, the essential conditions for producing them — superior varieties, and knowing how to combine them gracefully — being certainly realised in his case. Besides, *Cypripedium* × *Pauli* is alone sufficient to indicate a memorable event and to mark out a hybridist.

(*Continued from p.* 40)

number of varieties which exist. Only the names of the more remarkable and striking varieties are retained and preserved. Beyond these forms of the first class, which are naturally very rare, many amateurs give their plants distinguishing names, which however cannot be regarded as of any value outside any particular collection or circumstance. It frequently happens that the same variety receives several names simultaneously in different collections, and it also happens that some of these varieties cannot be identified with any degree of certainty, as the variations of *Cattleya Mossiae* are infinite. The practice of giving names to various forms ought therefore to cease, unless in the case of very choice varieties which have been figured in specially illustrated publications.

CYMBIDIUM LOWIANUM RCHB. F. var. FLAVEOLUM LIND.

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLXXII.

CYMBIDIUM LOWIANUM RCHB. F. var. FLAVEOLUM LIND.

BRIGHT YELLOW VARIETY OF H. LOW'S CYMBIDIUM.

CYMBIDIUM. Vide *Lindenia*, V, p. 63.
Cymbidium Lowianum. Vide *Lindenia*, IX, p. 19.
Var. flaveolum LIND., infra.

A form of *Cymbidium Lowianum* has already been figured in Volume 6 of the *Lindenia* (Vol. 9. French Edition), which represents it in all its beauty and wealth of colouring.

The very distinct variety, shown in our present plate, is not the opposite of that just mentioned, but a distinct deviation from the ordinary type in a quite different direction. The totally distinct aspect of the segments, and especially of the lateral sepals and petals, may even suggest some doubts as to the specific classification, if the other portions of the flower, and notably the highly characteristic lip, were not entirely similar in structure to *C. Lowianum*.

As to form, the lateral sepals and the petals, which are very long, greatly contracted at the base and externally folded on the edges, present a unique appearance, the flower as a whole being distinctly larger than in the type. As to colour, we see not a pale form, or a kind of albino, but a flower highly coloured with orange yellow at the apex of each segment, and especially the front lobe of the lip — the sepals and petals being of a clear yellow, washed with green at the base.

Only one variety of *C. Lowianum* exists which up till now presented similar characters, namely, the variety *Mandaianum* which was described by Mr. H. GOWER. We have not seen this plant, which is probably unique, but according to the description, the flowers were of a uniform clear yellow, except for the orange blotch on the anterior lobe of the lip. The new variety which we now figure is therefore more highly coloured, and probably more striking and beautiful.

It appeared at the beginning of this year among the importations of the HORTICULTURE INTERNATIONALE, Brussels.

It would be interesting to compare this remarkable variety with the various forms of *C.* × *eburneo-Lowianum* and *C.* × *Armainvillierense*, in which the general colour is a pale yellow on ivory, and the lip has the same form as in *C. Lowianum* with its purple red blotch in front. It would also be interesting to cross

C. Lowianum flaveolum with *C. eburneum*, and in this case one might hope to obtain flowers larger than those of the ordinary species, with a beautiful bright colour, and a wealth of blossum far superior to that of *C. eburneum*.

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SCHOMBURGKIA TIBICINIS BATEM.

PL. DLXXIII.

SCHOMBURGKIA TIBICINIS BATEM.

THE FLUTE-PLAYER'S SCHOMBURGKIA.

SCHOMBURGKIA. Vide *Lindenia,* X, p. 89.

Schomburgkia tibicinis. Pseudobulbis conicis corniformibus annulatis sulcatis triphyllis, foliis oblongis coriaceis patentibus, scapo longissimo tereti distanter squamato, apice paniculato, panicula pyramidali laxiflora, sepalis petalisque undulatis crispis, labello oblongo cucullato venis per medium 5 elevatis approximatis, laciniis lateralibus apice rotundatis, intermedia subrhombea emarginata, anthera emarginata.

Schomburgkia tibicinis BATEM., *Orch. Mex. et Guatem.,* t. 30. *Bot. Reg.,* 1845, t. 30. *Bot. Mag.,* t. 4476. — WILL. *Orch. Alb.,* V, t. 205. — VEITCH *Man. Orch. Pl.,* II, p. 102.

Bletia tibicinis RCHB. F., *Xen. Orch.,* II, 58.

There was a time when this remarkable Orchid enjoyed great popularity, and was to be found in almost every collection which had any pretensions to being complete. It is not so well known to modern orchidists for two reasons : First, because the brilliant discoveries in such genera as Laelia and Cattleya have caused its more modest qualities to be overlooked; and secondly, because it has become rare, as have many other Central American orchids, which are not now much imported, owing doubtless to the fact that the attention of collectors has been turned away from those regions which no longer possess many secrets.

Schomburgkia tibicinis is one of the oldest species of the genus, and with the exception perhaps of *S. Lyonsi*, which is still more rare, is the most beautiful. The flowers measure about 3 inches across, and are arranged on a lax panicle at the apex of a peduncle more than a yard high. The segments are well expanded, oblong obtuse, less undulated than in *S. rosea* or *S. undulata*, and folded inwards at the middle. They are rose-coloured at the base, and a beautiful reddish-brown from the centre to the tips. The large lateral lobes of the trilobed lip, are much spread out and much less raised at the edges than in Cattleyas and Laelias, and are orange yellow, profusely striped with purple-red, marked in the centre and on the anterior edges with yellow. The outer surface is purple-rose more deeply shaded towards the apex. The front lobe, which is much narrower and shorter, is roundish and unguiculate, with a yellow disc shaded to purple-rose in front, while the column is white washed with rose. The flowers are usually produced in May.

The almost cylindrical, annulated, pseudo-bulbs are attenuated towards the apex, and are from 8 to 14 inches (20 to 35 centimètres) high, and bear two or three rather short, patulous, coriaceous leaves. They represent the

form of a flute fairly well, and as they become quite hollow when dry, it appears that the natives of Central America utilise them as flutes or horns, a circumstance which suggested the specific name given by BATEMAN.

Schomburgkia tibicinis was discovered by Ure-Skinner in Honduras, and first flowered with Mr. BATEMAN in 1840. It is met with in small quantities in Guatemala, Costa Rica, and the southern parts of Mexico, and seems to be somewhat variable both in regard to colour and the size of the segments. The form figured herewith, recently flowered with Mr. J. PAUWELS, at Deurne, near Antwerp, and is one of the largest and most beautiful known. It unanimously received a First Class Certificate of Merit at the May meeting of the ORCHIDÉENNE.

Schomburgkias are usually grown in the same way as the Mexican Laelias, with which, besides, they have much in common, and notably with *L. superbiens*, and they succeed well in the most ventilated part of the Cattleya and Laelia house. Their only defect lies in being somewhat too tall, but this does not prevent them from producing a superb decorative effect at exhibitions or in groups of flowering Orchids with amateurs. It is only necessary to arrange the various plants on supports of different heights, and the Schomburgkias may then be placed in the centre or at the back of the group on the ground, which will enable the beauty of their flowers to be seen to the best advantage.

DENDROBIUM SUAVISSIMUM RCHB. F.

Jeanne Mercier pinx. *P. De Pannemaeker chrom.*

PL. DLXXIV.

DENDROBIUM SUAVISSIMUM RCHB. F.

VERY FRAGRANT DENDROBIUM.

DENDROBIUM. Vide *Lindenia,* I, p. 13.

Dendrobium suavissimum. Affine *D. chrysotoxo;* planta humilior et validior majori numero speciminum *D. chrysotoxi.* Pseudobulbi aggregati fusiformes bene stipitati, costis ad novem obtusangulis, vulgo triphylli. Folia cuneato oblonga acuta, more illorum *Dendrobii palpebrae* et *D. Griffithiani,* laud magna, telae validae. Pedunculus racemosus, laxiflorus. Bracteae minutae. Flores longe pedicellati, substantiae valde firmae. Sepala ligulata obtusa, mento brevi conico oblique retusiusculo. Petala cuneato oblonga obtuse acutiuscula. Labellum ab ungue brevi hastato dilatatum oblongo transversum retusiusculum, limbo ac disco lamellis bipectinato ciliatis microscopicis tectum; lateribus energetice supra columnam volutis. Columna trigona, apice tridentata, dentibus lateralibus obtuse brevissimeque semifalcatis. Basis columnae foveata. Anthera acuto conica. Flores pulchre aurei. Labellum disco macula reniformi, in medio sinu postice obtusangulo prominula, ac striis quibusdam subparallelis angustis. Omnes hae signaturae obscurissime atropurpureae. Callus transversus lineari subsemilunaris ante unguem.

Dendrobium suavissimum RCHB. F. in *Gard. Chron.,* 1874, 406; 1876, I, 756. *Xen. Orch.,* III, p. 2, f. 202. *The Garden,* 1878, t. 116.

Dendrobium chrysotoxum var. suavissimum, VEITCH, *Man. of Orch. Pl.,* III, p. 30.

This beautiful species was introduced in 1874 by Messrs. HUGH LOW et Co. from the higher regions of Burma, that is to say close to the regions traversed by the Lower Irawaddy and Saluen rivers.

It was described in the same year by REICHENBACH, in the *Xenia*, where the celebrated German orchidographist quoted a note adressed to him in a letter by Mr. DAY, a distinguished orchidist of that period. After the first flowering of the plant in his houses, Mr. DAY described it by saying that for the purposes of comparison it would be necessary to take a long inflorescence of *D. ochreatum* (*D. Cambridgeanum*) and place it on a plant of *D. Griffithianum.*

Comparisons should never be pushed to extremes, and if we recall this one made by a most competent connoisseur, it is because it presents an example of the analogies that may be easily established between several species of yellow-flowered Dendrobiums, which present among themselves many apparent similarities, but at the same time differences sufficiently distinct.

D. suavissimum, for example, bears some resemblance to *D. chrysotoxum*, and as may be seen from the references quoted above, it has even been ranked as a variety of it; but it is distinguished by its habitat, period of flowering, habit and colour. It is a native of a region somewhat distant from that in which *D. chrysotoxum* is met with, and situated more to the north, and it flowers in June, while the other flowers in March. Besides, it has pseudo-bulbs shorter

and thicker, leaves broader and shorter, while at the base of lip, the flowers have a large purplish-maroon zone which is absent from *D. chrysotoxum*.

As to *D. ochreatum*, to which it was compared by Mr. Day, *D. suavissimum* is readily distinguished by its habit, inflorescence, breadth of petals, and the form of the lip which has serrulate edges and a non-apiculate tip.

Indeed, taking all things into consideration, we think it is sufficiently distinct to be retained as a species.

It should be grown like *D. thyrsiflorum*, *D. densiflorum*, etc. in a warm and fairly well ventilated house, and should have a good period of rest, but abundance of water during the growing season. The flowering period lasts about three months, during which time the young growths are developed, which means that watering having been once commenced must not be withheld. It is rare that Dendrobiums in this section suffer from having been kept too dry during the winter, but once vegetation has begun, it is essential to assist it in every possible way, the more so as it progresses rapidly.

CYPRIPEDIUM LAWRENCEANUM RCHB. F. var. TRIEUANUM L. LIND.

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLXXV.

CYPRIPEDIUM LAWRENCEANUM RCHB. F. var. TRIEUANUM L. LIND.

Mr. DU TRIEU DE TERDONCK'S var. of SIR TREVOR LAWRENCE'S CYPRIPEDIUM.

CYPRIPEDIUM. Vide *Lindenia,* I, p. 17.
Cypripedium Lawrenceanum. Vide *Lindenia,* vol. I, p. 89 *(var. Hyeanum).*
Var. moortebeekiense L. LIND., supra, p. 39.

The new variety which we now figure flowered early this year at Moortebeek, and has been dedicated to the devoted Treasurer of the ORCHIDÉENNE, Mr. DU TRIEU DE TERDONCK, one of the most capable of Belgian amateurs. It may be considered as representing the apogee of the beauty of this highly esteemed Bornean species. The upper sepal particularly is exceptionally large and remarkably coloured, the red stripes with which it is decorated being prolonged to the apex and anastomosing among themselves at several points. The petals are very long, and the lip is of a deeper colour than usual.

In an article published some years ago in the *Journal des Orchidées*, the following observations concerning the climate of Borneo occur :

" What characterises the habitat of Orchids in tropical regions, and " particularly in the Dutch Indies, is not, as one would imagine, a burning " sun and a certain dryness of the soil. Most of the species, on the contrary, " grow in a very close atmosphere, shaded from the rays of the sun, and " plunged in a vapour bath constantly maintained by the long and continued " evaporation from pools of rain-water or springs. The temperature is very " high in these places, which are seldom penetrated by the sun, and the air " is disturbed but little owing to the accumulation of vast heaps of leaves; the " sun dries very slowly, and the rising vapour remains stationary for a long " time in this stove-like atmosphere. „

In spite of the enormous differences existing between these conditions of life and those under which Orchids in Europe are grown, *Cypripedium Lawrenceanum* thrives remarkably well in cultivation, develops rapidly, and flowers profusely every year. It is one of the most characteristic examples of flexibility of temperament, and of the marvellous faculty of adaptation possessed by these beautiful plants.

THE CULTURE OF MAXILLARIAS.

Maxillarias are usually cultivated in cool temperate houses, in the same way as Lycastes and the Colombian Miltonias. The temperature which suits them best varies from 9° to 12° C. (about 50° to 55° Fahr.) according to the exposure and the construction of the house. They may also be easily grown in temperate houses, the sweetest and best ventilated positions being reserved for them, or even in the same house as the Colombian Odontoglossums in places most exposed to the sun and least near the ventilators.

If necessary the amateur who wishes to grow Maxillarias in the same house as the cool Odontoglossums or Masdevallias, may reserve for them a certain portion of the staging, above which may be placed a branch of hot-water pipe in order to heat a little more this particular spot, and to create an ascending current of air to protect these plants against a draught too strong for their liking. It is thus easy to make a less encumbrous subdivision in a house and in case of need to dispense with it more easily than it is to erect a separate compartment divided by partitions.

It is hardly necessary to say that the distinction will hardly exist in summer, as during this season there is rarely occasion for fire-heat in the alpine Odontoglossum house. But watering would not be so frequent in the Maxillaria section, and damping down the footpaths and stages would be less necessary. In the winter the temperature indicated above should be maintained, and while the Maxillarias will require very little water, most of the Odontoglossums must always receive plenty.

The cultivation of the two kinds of plants may thus be carried on easily together, and the difference between them will become less noticeable, if the system be adopted of allowing the Odontoglossums, to remain in a state of comparative rest during the warmest period of the year, and allow them to grow rapidly in the winter. One may almost be content with the same temperature for the two classes of plants, making only a difference in regard to the watering.

Maxillarias are mostly grown in pots; but *M. Sanderiana,* which produces its flower-spikes rather low down and in a pendulous position, would be better in a basket, as then one may be sure of not losing the flowers. *M. Lindeniae, M. striata,* which is of modest growth, and *M. venusta,* are also cultivated occasionally in baskets. For compost, a mixture of sphagnum moss and fibrous peat in equal parts, or a little more peat than sphagnum, may be used.

With some amateurs the leaves of Maxillaria frequently bear black spots. This is generally caused by the house being too moist. Good ventilation is the best remedy, but care must be taken to give it only when the external temperature is fairly high, and when the wind is not too strong.

At times, also, the leaves are attacked by thrips or other insects, which have increased rapidly this year, having been favoured by the great heat. In such circumstances the leaves and the pots should be washed with tobacco-water, and the stages should be kept clean. As the least fold in the leaves may serve to harbour the insects and their imperceptible eggs, it is essential to pass the sponge or brush over the entire length of the leaves.

MILTONIA VEXILLARIA BENTH. var. VITTATA L. LIND.

G. Putzys pinx. *P. De Pannemaeker chrom.*

PL. DLXXVI.

MILTONIA VEXILLARIA BENTH. var. VITTATA L. LIND.

STRIPED VARIETY OF M. VEXILLARIA.

MILTONIA. Vide *Lindenia*, II, p. 31.
Miltonia vexillaria. Vide *Lindenia*, V, p. 21.
Var. vittata L. LIND., infra.

Although *Miltonia vexillaria* is pretty variable in regard to colour, still its diverse forms have, as a rule, a uniformity of tint, ranging from bright to pale rose and sometimes white. The lip may be brighter or darker than the other segments, but like them, it has one regular colour.

The variety shown in our plate is an exception on this particular point, and is consequently very interesting. The petals and sepals are deep rose at the base, passing through pale rose to white at the tips. In addition, the two lateral sepals have two clear brown longitudinal stripes at the base extending as far as the middle, and set in a long white blotch, such as is frequently seen on the lip. This latter organ has a broad bright yellow blotch on the disc, and three small spreading brown stripes in front of the crest. The disc is transversely bordered with a broad white zone, which extends down the centre in a narrow band. In front of this white band, and surrounding it, is a clearly defined expanse of deep rose, which fades to white towards the edges.

The flowers are tolerably large, and on the whole constitute a very distinct and attractive variety.

M. v. vittata appeared among the importations of the HORTICULTURE INTERNATIONALE, Brussels, where many remarkable forms have for several years revealed themselves, among them being the equally first class variety *quadricolor*.

NOVELTIES.

Cattleya × *Russeliana*. This is a beautiful hybrid obtained from *C. Schilleriana Regnelli* and *C. labiata Warneri,* by Mr. GEORGE MANTIN who exhibited it at a special Orchid Meeting in Paris on June 24th last.

The plant is manifestly intermediate between the parents indicated as much by its habit as by its inflorescence. The flower is of a medium size, with petals as large as those in the ordinary *C. labiata,* wavy at the edges, and of an intense rose colour shaded with brown; the sepals which are much narrower are of the same colour, while the lip reminds one very much of *C. Schilleriana,* but has a somewhat brighter colour. The petals were not altogether expanded, and it is possible that the flower will open better later on; if not, that will be the only defect of this truly remarkable hybrid.

Laelio-Cattleya delicata. This new hybrid, which has been produced by the same raiser as the preceding one, is derived from *Laelia pumila* and *Cattleya Eldorado virginalis*. It somewhat resembles *Cattleya* × *Brymeriana,* the origin of which is merely conjectural. It is a little gem, having petals, sepals, and tube of lip shaded with an exquisitely delicate tint of primrose yellow; the front lobe of the lip is larger than in *L. pumila,* and is of a very intense purple-red which makes a striking contrast.

Mr. GEORGE MANTIN also exhibited at Paris on June 24 several other very interesting hybrids, to which we shall again refer, but we may here specially mention a form of *Selenipedium* × *Duvali* with a very light colour, reminding one very much of *S. longifolium,* but having broader segments, especially the upper sepals, and a more graceful habit.

Cattleya Mossiae Madame Garden. This variety was shown by Mr. GARDEN, of Bois de Colombes, on June 24, at Paris, and is worthy of mention. The lip, which has a very crisped edge, is of an almost uniform clear rose, and bears hardly a trace of yellow on the disc.

Cymbidium Lowianum var. flaveolum. This variety appeared at the beginning of the year among an importation of the HORTICULTURE INTERNATIONALE, Brussels. So far as form is concerned, the lateral sepals, and the very long petals, which are much contracted at the base, and folded externally at the edges, have a character of their own, and the flower is distinctly larger than that of the type. As to colour, we see, not a pale form or a kind of albino, but a flower highly coloured with orange-yellow at the tips of each segment, and especially the front lobe of the lip. The sepals and petals are bright yellow tinged with green at the base.

Only one variety of *C. Lowianum* exists which up till now presented similar characters, namely the variety *Mandaianum*, which was described by Mr. H. GOWER. We have not seen this plant which is probably unique, but according to the description the flowers were of a uniform clear yellow, except for the orange blotch on the anterior lobe of the lip. The new variety is therefore more highly coloured, and probably more striking and beautiful.

It would be interesting to compare this remarkable variety with the various forms of *C.* × *eburneo-Lowianum* and *C.* × *Armainvillierense* in which the general colour is a pale yellow on ivory, and the lip like that of *C. Lowianum* with its purple-red blotch in front.

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…im Bungerothi var. aurantiacum, Catasetum imperiale, Catasetum …Catasetum splendens var. Aliciae, Cattleya gigas var. amplissima, …eopold II, Cattleya Mossiae var. amoena, Cypripedium × Félix …ripedium × Madame Octave Opoix, Dendrobium nobile var. can…aelia glauca, Laeliocattleya × Sayana, Laelio-Cattleya × Varjenevskyana, Masdevallia ludibunda, Masdevallia triangularis, Maxillaria Lindeniae, Odontoglossum Edwardi, Odontoglossum × Halli-xanthum, Odontoglossum × harvengtense, Odontoglossum pulchellum var. majus, Phaius maculatus, Schomburgkia rosea, Stauropsis gigantea, Zygopetalum Wendlandi.

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…llum carinatum, Catasetum fimbriatum var. Cognauxi, Cata…atum, Catasetum species novae, Catasetum stupendum, Cattleya …tleya Mossiae var., Cattleya Mossiae var. Reineckeana subvar. …attleya Mossiae var. alba subvar. coelestis, Cattleya Skinneri …ar. …, Cypripedium × Aylingi Castle Stand Hall. var., Cypripedium × Evenor var. grandiflorum, Cypripedium × Lawrenceo-Regnieri, Eulophia Congoensis, Laelia autumnalis var. alba, Laelio Cattleya × Schulziana, Odontoglossum crispum var. luteo-radiatum, Oncidium onustum, Rhynchostylis retusa, Saccolabium ampullaceum, Stauropsis Lissochiloïdes, Vanda Parishi var. Marriottiana, Vanda spathulata.